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ABSTRACT

The purpose of this study is to investigate the applicability of position analysis to administrative assignments in education, and to ascertain criteria to be used in adapting position analysis to public education. Position analysis techniques are used to determine the relative worth of jobs in an organization by placing their scope of responsibility in a common frame of reference, thereby establishing equitable remuneration procedures. Chapter 1, the introduction, lists the potential benefits of position analysis and its possible applications in an educational context. In chapter 2, a literature review identifies aspects of organizations common to both the public and private sectors. Pertinent literature relating to the history of position analysis is also reviewed, as well as literature about position analysis in government, business, and education. An overview follows of the four major position analysis systems, along with a survey of commercially available systems. The information derived from these sources provides the basis for the following analyses in chapter 3: (1) a comparison of the distinctive features of public and private sector organizations; (2) analysis of the impact of position analysis on organizations; (3) an evaluation of the four generic position analysis systems measured against identified implementation criteria; and (4) a comparative analysis of the four systems of position analysis in relation to purposes of organizational development. Findings are reported in chapter 4, including a summary of the advantages and disadvantages of the four major position analysis systems: ranking, classification, point system, and factor comparison system. Three appendixes provide illustrative documentation for the study, and footnotes and a bibliography are included. (TE)

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DEPARTMENT OF EDUCATIONAL ADMINISTRATION
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TEAM PROJECT

POSITION ANALYSIS IN EDUCATION

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TABLE OF CONTENTS

I	Introduction	1
II	Review of Literature	12
III	Procedures Followed and Materials Employed	68
IV	Presentation of Findings	72
V	Summary, Conclusion and Recommendations	93
VI	Appendices	97
VII	Footnotes	122
VIII	BIBLIOGRAPHY	128
IX	LIST OF TABLES	
	Table 1. Public & Private analysis in relation to the Six-Box Model Organizational Process	75
	2. Analysis of the four different Position Analysis Systems	84
	3. Comparative Analysis of four systems of position analysis in relation to factors for organization development	88
X	ILLUSTRATIONS	
	Figures	
	1. Organizational Pyramid for Business or Industry	17
	2. Organizational Pyramid for Public School Administrator	17
	3. Inter-relation of Weisbord Six-Box Model	23
	4. Paired-Comparison Rankings	42
	5. Organization Processes - Formal/ Informal - Private/Public	73

POSITION ANALYSIS IN EDUCATION

CHAPTER I

INTRODUCTION

I. Statement of Problem

The purpose of this study is to investigate the applicability of position analysis to administrative assignments in education. This study will attempt to answer two questions:

1. Is position analysis appropriate for use in public education?
2. What criteria should be used in adapting position analysis for use in public education?

Position analysis techniques have been used extensively in business, industry and government, but have had limited application in public education. The lag is probably due to a lack of widespread knowledge of such practices and to difficulties in adapting available techniques.

A search of the resource file of the Educational Resource Information Center (ERIC) reveals one study by Mahoney which relates specifically to the problem of position analysis.[1] The results of this study were presented at the annual meeting of the American Education Research Association in 1968.

A number of factors appeared to be the cause of the limited application of position analysis techniques in public education at the administrative level. Some of these factors are:

1. A reliance on acceptance of professional certification as sufficient to qualify an individual for an administrative position.
2. A lack of awareness as to the types of instruments available for adaptation in public education.
3. A traditional view in public education that the "Measure of the Man" supersedes measurement and analysis of the specific position.
4. The inclination of the public schools to move slowly in instituting any type of change.
5. Increased demand for administrative positions during the last two decades have given position analysis a low priority.

When a school district faces situations requiring changes in its administrative organization, problems related to re-

assignment of administrative functions and tasks are likely to occur, unless a definitive and systematative procedure for analysis of jobs can be employed. These problems are exacerbated by the proliferation of state and local regulations that require more of educators' time and energy.

Position analysis techniques are often used to determine the relative worth of jobs in an organization by placing their scope of responsibility in a common frame of reference. The adaptation of these techniques would enable public school systems to approach equity in terms of assignment of responsibilities and tasks as one job is compared to others in the organization. The results of position analysis would facilitate a systematic approach to establishing equitable remuneration procedures.

Adaptation of practices from the public and private sector is a facet of this project. Previous educational work in this area concerned itself with improvement of staff quality during an era of personnel shortages. The enrollment decline, along with the deterioration of the economy, has generated a myriad of problems relating to reducing staff positions, while at the same time, governmental regulations have increased the responsibilities of public school administrators.

Application of position analysis techniques has the potential to facilitate and improve decision-making relative to the organization of administrative systems in the public schools.

II. Statement of Significance

Within a short period of time, a dramatic reversal in the supply and demand for educational personnel has occurred. The 1970's began with many school districts experiencing relatively stable enrollments; however, this condition rapidly turned into an accelerating rate of decline. It is now clear that education is experiencing a decline that most likely will persist throughout the 1980's. The likelihood that school districts will sustain current levels of administrative staffing seems remote, in spite of ever-increasing public expectations from from the education establishment.

The need for better management and executive performance in the public schools will be dependent upon definition and clarification of administrative functions and responsibilities. School systems have generally added administrative staff as exigencies warranted. While this staffing decline in public schools continues, public expectations for performance accountability are increasing. This dilemma is exacerbated by current conditions which are characterized by rampant inflation and a recessionary economy. It is the position of the writers that adaptation of position analysis techniques will achieve the following objectives:

1. Provide definitive, systematic, and factual data for determining the relative worth of positions.
2. Establish appropriate salary differentials for all positions within the school system.

3. Provide a rationale for the hierarchy of the job network.
4. Clarify an overview of the specific job network; that is, the levels and relationships in the entire school organizations.
5. Improve morale by encouraging administrative and supervisory personnel to think objectively about the work their subordinates are doing.
6. Aid in selecting, placing, promoting, transferring, and training of personnel.

Position analysis is not an end in itself. It is a means to any of several ends. The purpose for which an analysis is conducted will, therefore, determine the kind of information one must gather and the manner in which it might be arranged and reported. Some of the purposes include:[2]

1. To restructure jobs.
2. To eliminate situations in which employees with given levels of expertise are performing work significantly above or below such levels, or, have been assigned duties which are essentially unrelated to the primary objective of their assignment. It is also an effective procedure for eliminating dead-end assignments which inhibit employee development, weaken morale and contribute to high turnover. The analysis task can identify individual activities that can be transferred from one assignment to another and when rated on an

appropriate scale, will convey valuable information concerning the complexity of each task and its appropriateness for reallocation to another assignment.

3. To develop more relevant training programs. Generally there are inservice misperceptions of the various requirements for one to adequately perform in an assignment. With the rapid changing nature of many assignments, it is no longer possible or correct to assume that employees have the same training needs as when they were first employed. Task statements can identify specific skills and knowledge and assist the staff development leader in organizing objectives for staff development.
4. To establish realistic job qualifications. When preparing recruitment and promotional materials, the requirements are often copied from a previous announcement or posting. Because assignments do change, such postings would then discourage capable candidates, while encouraging inappropriate individuals to apply, and in some cases, be selected. Properly identified and analyzed task data will give an administrator a better idea of precisely what kind of experience and educational background should be required.

5. To devise better and safer tests for employment. Written tests have come under increasingly heavy criticism. Courts have ruled that a written examination which cannot be proved to be job-related, and has discriminatory impact is in violation of the law. Test data, if pursued through job analysis, can readily be shown to be job-related.
6. To improve evaluations of job performance. Regular evaluations can identify exemplary work to be rewarded in the performance and encouragement of other employees. They can also identify substandard performance which can necessitate special training. Evaluation is thus a primary tool for insuring that management decisions and policies are properly implemented throughout an organization. Job analysis will assist in developing job-related criteria to provide the ground work for job-related and result-oriented evaluation criteria.
7. To provide a resource for updating job descriptions. Since the responsibilities and activities of most organizations change over time, even job descriptions once accurate, can be obsolete and outdated. Job analysis can be the basic ingredient of accurate job description authoring.

8. To provide a resource for on-the-job counseling. When personnel officials have detailed information concerning the basic content, qualification and skill requirements of every job in the organization, they are able to give more comprehensive career counseling to employees.

9. To identify safety hazards. The Occupational Safety and Health Act reflects a growing national concern for eliminating hazardous working conditions. Job analysis can be used to identify current and potential dangers in job situations.

10. Other uses. Job analysis can also be used in a number of additional areas. Among them are wage and salary administration, job development, for the disadvantaged or the physically handicapped, affirmative action program planning and implementation, manpower planning, and the establishment of management information systems.

III. Definition of Terms

The following terms will be used in this study as defined below:

ACCOUNTABILITY: The understanding and acceptance of a responsibility for an action and for the consequence of that action.

ANALYSIS: The separation of a subject into its various parts and the studying of the parts themselves and their relationships in an effort to correctly understand and interpret their full meaning.

FUNCTION: The definition of why a position exists, or the general purpose it serves the organization as a whole.

JOB ANALYSIS: The study of a job to determine duties, physical and mental requirements, tools and equipment used, lines of promotion, experience and ability requirements, wage and salary rates, working hours and conditions, and relationships to other jobs.

JOB CLASSIFICATION: The grouping of similar jobs into categories, generally on the basis of type of work or level of comparison.

JOB DESCRIPTION: Definition of the scope of a position and describes the responsibilities inherent in that position. It denotes in brief, concise language those duties assigned to a job. A position analysis also specifies any work expertise and qualifications necessary for satisfactory completion of the job.

JOB NETWORK: The administrative and functional structure that combines the work of many employees to achieve a desired end.

POSITION ANALYSIS: The complete operation of determining the value of an individual position in relation to the other positions in an organization.

RESPONSIBILITY: The specific areas of activity in which the individual is responsible for results and the general kind of results expected of him.

IV. An Overview of the Paper

American education finds itself moving into the 1980's in the midst of conflicting and often adverse situations.

The 1970's began with many school districts experiencing relatively stable enrollments. However, by the end of the decade, an accelerating rate of decline in enrollment had taken hold, which will persist throughout the 1960's.

During this same period, the nation's economy had been plagued with unstable conditions and a persistently high rate of inflation. This condition has brought about a decrease in the dollars available for all institutions at a time when the purchasing power of the dollar has been decreasing rapidly. These inflationary forces have placed educators in the position of needing greater financial resources during a period of declining enrollment.

This dilemma has been further complicated by the addition of numerous state and federal regulations. This, in turn, has increased program demands during a period of decreasing resources and diminishing purchasing power.

Leaders in public education will find it necessary to develop the most effective management systems. In order to achieve a high level of effectiveness and efficiency, public schools need to know the best techniques available that will result in the most effective administrative organization.

It is the hypothesis of this study that the problem can be approached through adaptation of position analysis techniques developed and used in the private sector. In effect, it is the team's position that there may be a great deal of congruence between the private and public sectors. Having reviewed and analyzed the use of position analysis in the private sector, it is the team's contention that similar techniques can be effectively employed in education for better definition and clarification of administrative organization.

The use of position analysis in education requires an understanding of the process, its ultimate purpose and its overall value to public education.

CHAPTER II

REVIEW OF LITERATURE

I. An Overview

Historically, educators have maintained that educational organizations are unique unto themselves and therefore, not to be compared to private sector organizations. This position has further supported the contention that systems used in the private sector are not transferable to or adaptable to education.

A review of the literature of organizations reveals that all organizations, regardless of sector, have common factors which make a comparison possible.

1. Goals: Those elements which give direction to an organization's efforts and justify its existence.
2. Structure: A bureaucracy or hierarchy of position adapted to the organization's goals.
3. Social System: Structural patterns within the organization that defines relations among persons and groups within the organization.

4. Communication Networks: Formal and informal networks or systems for receiving, processing and transmitting information throughout the organization.
5. Distribution of Authority: A formal system within the organization delineating levels and degrees of authority in relating to the organizational structure.
6. Resources: Fiscal, human and material resources that sustain the organization's activities in relation to its goals.
7. Constraints: Cultural and environmental restraints which effect all aspects of every organization.
8. Service functions: Those functions which give an organization its reasons for existence.
9. Dynamic life cycle: A capability of maintaining and renewing itself over sustained periods of time.

The above factors illustrate the processes and functions common to all organizations. In essence, whether private or public, the establishing of an organization is a matter of determining form and structure and the relationships of all internal parts. Further, in the broadest sense, there are administrative functions common to all organizations. Every organization consists of various gradations of authority which in turn reflect a chain of command.

A review of the writings of Max Weber and Talcott Parsons indicates that there are other areas of commonality among all organizations and bureaucracies whether public or private. Max Weber's studies concerning the essentials of a bureaucracy show that there are six characteristics common to all bureaucratic organizations: A hierarchy of authority, a division of labor, a system of rules, rights and duties of all employees, a system of procedures to deal with the work situation, impersonality of interpersonal relationships and a clear separation of property belonging to the individual as opposed to the organization.[3]

Talcott Parsons has developed a four point scheme applicable to all organizations.[4] All organizations, without regard for sector, must solve four basic problems:

1. Adaptation to the environment
2. Achievement of goals
3. Integration - cohesiveness among its various units
4. Latency - maintenance over time of a systems pattern.

Having identified common factors and essentials of organizations, regardless of sector, it now becomes necessary to review the literature to be able to analyze the specific characteristics of public and private sector organizations.

II. CHARACTERISTICS OF PUBLIC AND PRIVATE SECTOR ORGANIZATIONS

Position analysis has had longstanding and widespread use in business. The techniques and processes for performing

position analysis have been, for the most part, developed in the private business sector. It is the hypothesis of this team that position analysis can be effectively used in upper echelons of educational administrative organizations. However, the adoption or adaptation of a procedure from the business sector for use in public school systems requires a clear understanding of the context in which both business and education operate. This section of the chapter will examine sources in the literature to ascertain similarities and differences between public and private sector organizations in order to identify those factors likely to facilitate or impede the use of position analysis in public school systems.

Peter Drucker distinguishes business from other organizations as follows:

> A business is set apart from all other human organizations by the fact it markets a product or a service. Any organization that fulfills itself through marketing a product or a service is a business. Any organization in which marketing is either absent or incidental is not a business and should never be managed as if it were one.[5]

Drucker classifies educational organizations as "service institutions." Service groups and service functions also exist in business. There are elements common to all service institutions:[6]

1. The service institution does not produce economic results directly or perform economically by itself

2. The service institution is paid for by economic surplus produced by economic activity. It is overhead--either business or social
3. They are load-bearing members of the main structure of an organization or society

The manager in public-service institutions faces the same tasks as managers in business which are as follows:[7]

1. To perform the functions for the sake of which the institution exists.
2. To make work productive and the worker achieving
3. To manage the institutions social impacts and to discharge its social responsibilities.
4. To innovate, grow, diversify and deal with business complexities.

At one time the management of business and service institutions were seen to be poles apart. The mission and purpose of the institution makes a basic difference for its management. The service institution does not differ very much from business enterprise with respect to the manager's work and job, organization design and structure, or even the job structure of top management. The service institution is fundamentally different from business in its business. It is different in its purpose and it has different values. It needs different objectives and it makes a different contribution to society.

Stephen J. Knezevich illustrates similarities and differences between business or industry and public school administration by depicting organizational pyramids of each sector.[8] See Figures 1 and 2.

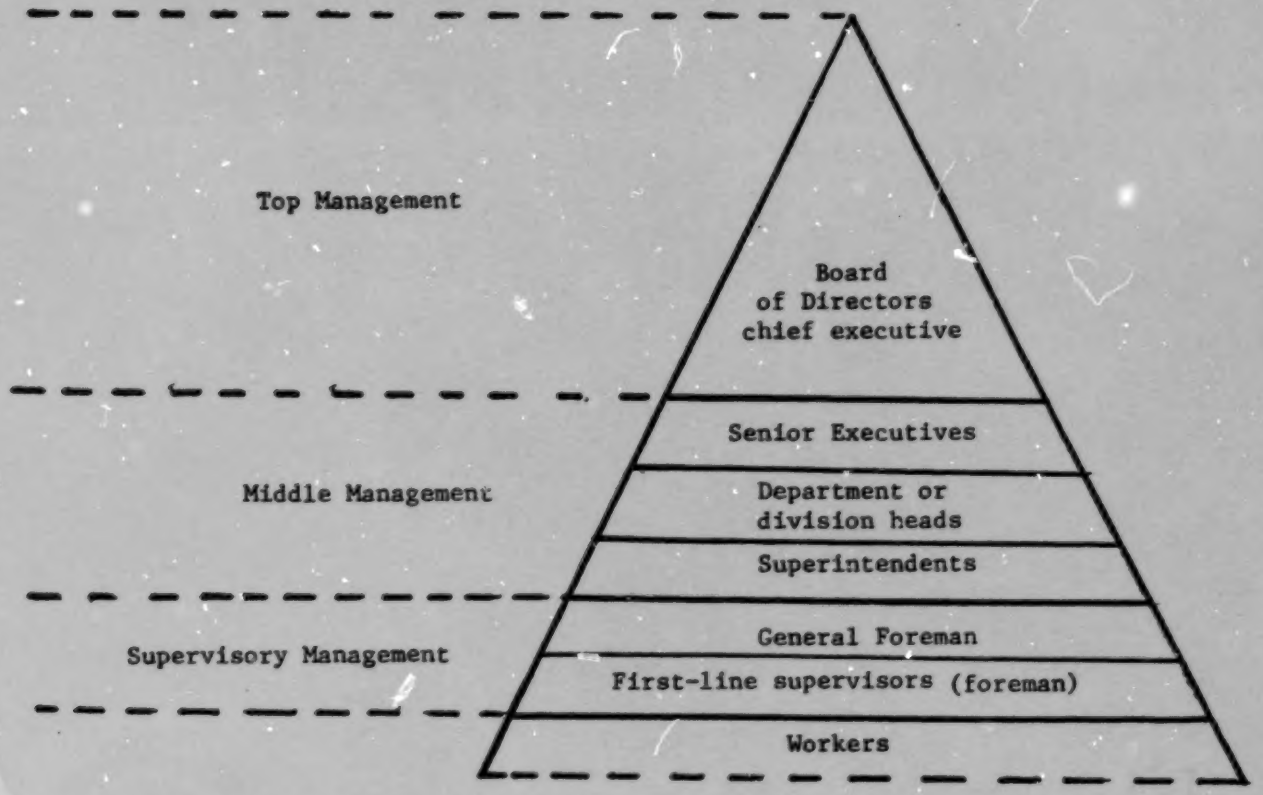

Figure 1. Organizational pyramid for business or industry

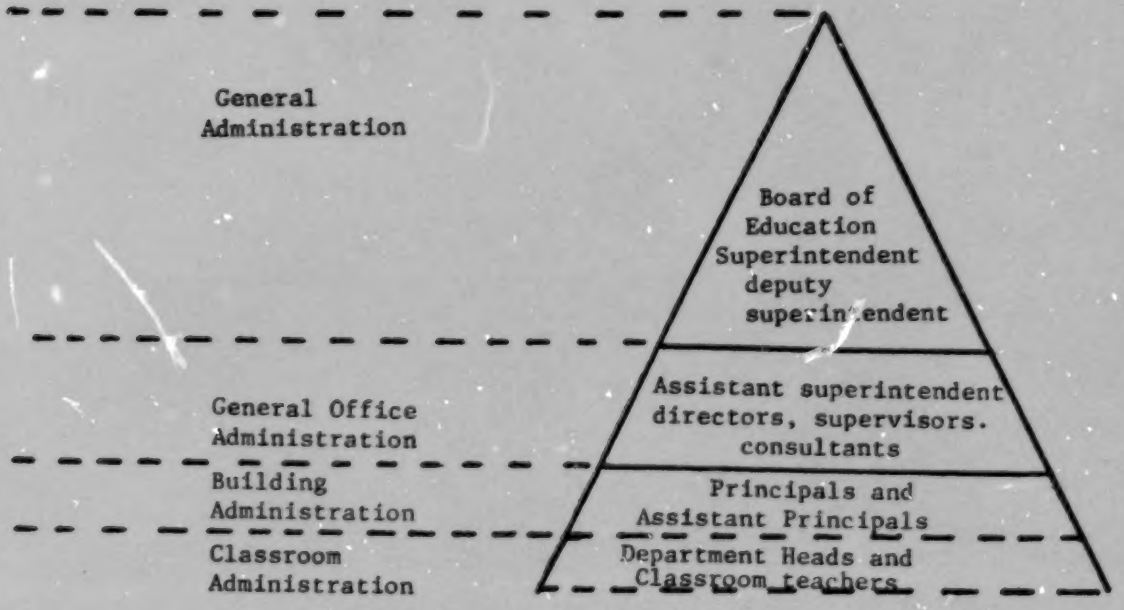

Figure 2. Organizational pyramid for public school administration

The most conspicuous differences between the two organizations are the (1) composition of the top management group and (2) the nature of job preparation required of the lower echelon.

The views of Donald A. Curtis add dimension to the organizational pyramids of Knezevich. According to Curtis, managers in the public sector have a difficult job because they operate under much tighter constraints than those in the private sector.[9] The special problems public sector managers face may be traced to four conditions under which our society operates:

1. Separately elected but equal branches of government.
2. Public sector services are rarely purchased directly by citizens.
3. The need to protect against a "spoils systems."
4. Democracy opens management to the public at both policy and operating levels.

The lists presented below summarize the perceptions of Curtis in his argument.

MANAGEMENT

Private Sector	Public Sector
1. Separation of Powers	Three special but equal branches constitute the organizational structure (a) policy makers (legislative branch) are a large diverse group that do not gain experience from implementing their decisions. Policy decisions are based upon
Senior managers play two roles (a) work with one another to formulate policy and (b) complement policy.	
The business approach produces the following characteristics:	

MANAGEMENT CONT'D.

Private Sector	Public Sector
a. a relatively small group of policy makers. b. expertise of segments in the organization are in the policy-making process. c. policy makers must implement their policies. d. experience in implementation policy is brought back into the policy making process.	indirect experience. Also, the well-intentioned politician may vote contrary to his better judgment. (b) written law establishes policy for implementation (by the executive branch). Senior executives who implement policies may be from the political party in the legislative branch. (c) disputes about the meaning of policy are interpreted in the courts (judiciary) although they were not part of the policy-making provess. Public sector managers operated in an organizational structure which is deliberately designed to be weak.
2. Services not bought by users. Executives base their volume of production on projected sales. Signals received from the consumer provide incentive to improve cost performance characteristics of products.	Lack of market competition cuts managers off from consumer signals to judge value of products. Incentive to improve suffers. Public must buy certain services regardless of perceived value. Everyone receives certain services regardless of different user costs. No revenue fluctuation to signal changes in service. Assumptions underlying policy in the public sector are: 1. resources are available to implement the law 2. services chosen are worth their cost compared to alternative use of resources 3. failure to implement the law is not an alternative

MANAGEMENT CONT'D.

Private Sector	Public Sector
3. Spoils system	Elected executive branch head appoints top department heads but a civil service system protects lower level executives and employees.
Senior managers most often come from within the organization.	Senior managers have a fixed term of office (this may create a "wait out" mentality).
Organizational change is a major executive tool.	Civil service protect lower level managers from higher level action.
Performance linked to rewards.	Incentive to perform diminished by protection and reward system.
	Protected from dissatisfied customer.
4. Managing in the public eye.	People outside the organization feel qualified to judge management processes due to media and free press.
Managers have more freedom of choice.	This created restrictive hiring and purchasing systems.
	Managers often operate contrary to common management techniques.
	Media has an incentive to criticize managers.
	Many executives, aware of management constraints, withdraw from becoming involved.

Thomas A. Shannon argues that schools are not businesses and cannot be operated like a private business. His argument

is based upon eight factors comparing two organizations. This comparison is summarized below.[10]

COMPARISON OF SCHOOLS AND BUSINESS

Business Enterprises	School System
1. Goal is profit-making: signal of success is profit.	1. Have multiple objectives: signal of success is community esteem.
2. Governed by groups, boards of directors and managers which have the same purpose.	2. Governed by political boards responsive to the diverse interests of the electorate.
3. Business is an employer.	3. Public education is both an employer and a governmental entity.
4. Labor unions are oriented to the private sector.	4. Unions are quasi-political entities.
5. Managers enjoy much discretion in managing an enterprise.	5. School system managers operate under a detailed set of constraints.
6. There is a sharply defined top leadership group that enjoys freedom in dealing with managers.	6. School managers are a more amorphous group that possess more job security than those in the private sector.
7. Power and influence over operations remain within the business.	7. External constituencies (employees at all levels, too) are capable of exerting tremendous influence on both governance and administration.
8. Defamation of managers may lead to redress in the courts.	8. Managers have virtually no protection against libel and slander.

The Six-Box Model of organizational diagnosis developed by Marvin Weisbord is a tool for systematic analysis of organization.[11] According to this model, organizations exist in

environments. It is necessary to understand the interactions between the organization and its environment if organization development interventions are to be successful. Weisbord suggests formal and informal systems are present in all organizations. Formal systems are the intended ways to get things done while informal systems are the actual ways things get done. The components of the Six-Box Model, six interrelated processes inherent in all organizations, are listed as follows:

1. Purposes - deals with goal clarity and commitment to goals. It is the specification of the organization's "business."

2. Structure - deals with the formal organizational chart and the informal ways in which work is actually accomplished. It is the manner in which work is divided within the organization.

3. Relationships - involve who deals with whom on what issues and the quality of those interactions. Conflict management and resolution is a key issue within organizations.

4. Rewards - deals with the explicit incentive system and the manner in which persons within the organization respond to task accomplishment. It deals with the incentive support for achievement in the organization.

5. Leadership - deals with management responsibilities and how effectively they are carried out. It is the organization way of keeping itself in balance.

6. Helpful Mechanisms - involves management information, budgeting and planning functions, and facilitating devices for other aspects of the organization. It involves the adequacy of coordinating technologies.

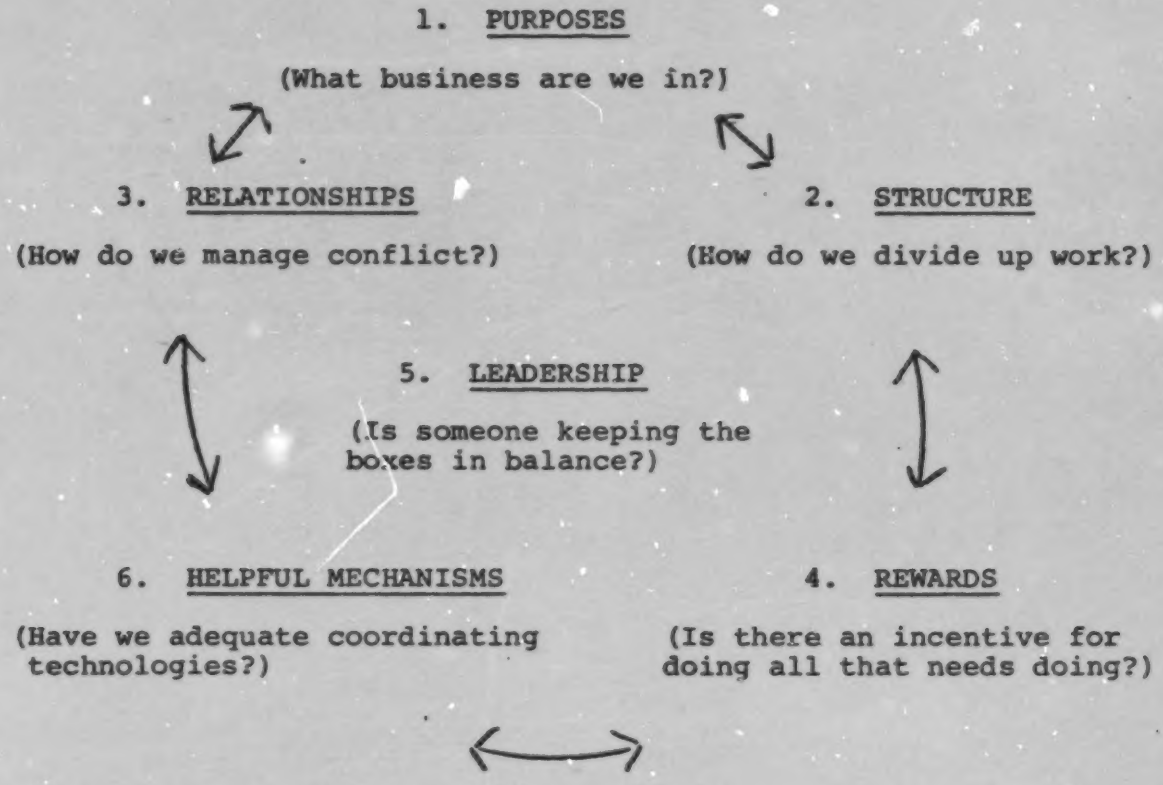
1. PURPOSES
(What business are we in?)
3. RELATIONSHIPS
(How do we manage conflict?)
2. STRUCTURE
(How do we divide up work?)
5. LEADERSHIP
(Is someone keeping the boxes in balance?)
6. HELPFUL MECHANISMS
(Have we adequate coordinating technologies?)
4. REWARDS
(Is there an incentive for doing all that needs doing?)

FIGURE 3. Interrelation of Weisbord's Six Box Model.[12]

Weisbord regards these six processes as the critical components for viability of an organization. The literature reveals sufficient similarities in organizational processes and the role of managers between business and educational systems to suggest the use of the Six-Box Model as a frame-of-reference with which both institutions can be compared. The Six-Box Model provides these writers with an appropriate tool to clarify the differences between organizations in the public and private sector. It also provides a tool for analyzing methods

of position analysis to determine their efficacy for use in public school systems.

In summary, the lists of differences between business and public sector organizations are helpful but limiting. Although businesses and public organizations have many similarities, they also have important systemic differences that may produce significant consequences for any intervention into these systems. These differences need to be more substantially described in order to derive the implications for adapting position analysis for use in public school systems.

III. HISTORICAL DEVELOPMENT OF POSITION ANALYSIS

The historical development of Position Analysis may have begun 17,000 years ago when the early men named Magdalenians lived and created in Southern France. They were hunters and artists, tool makers, and tailors; findings in the caves of the Vezere Valley give evidence of the work of specialists.[13]

Position Analysis has been in use for centuries. In 301, the Edict of Diocletian fixed a maximum rate of wages. It described jobs and wages ranging from common laborer to advocate.[14] The medieval craft guilds determined wages and working conditions. Craft guilds differentiated between apprentice, journeyman, and master, depending on the skill required in the craft.[15]

The beginnings of modern industry were in 1738, when John Wyatt developed a spinning machine. Adam Smith and other early

economists believed the division of labor was the basis of manufacture. Charles Babbage added to this principal. He believed the division of the work into different processes, requiring different degrees of skill and force was more efficient than having one workman execute the total process.[16] Adam Smith, Charles Babbage, and M. Coulomb, a French physicist (1736-1806), all analyzed and recorded manufacturing operations.

In 1838, a group of government clerks petitioned the United States Senate to provide equal pay for equal work. The Senate passed a resolution that required department heads to classify positions "in reference to the character of the labor to be performed, the care and responsibility imposed, the qualifications required, and the relative value to the public of the services of each class as compared with the others."[17] The Federal Classification Act was finally passed in 1923.

Position classification was also used by municipal governments in the early years of the twentieth century. Chicago adopted a plan in 1912, Pittsburgh in 1915, New York City in 1917, Detroit in 1925, Los Angeles in 1939, and San Francisco in 1941. These classification systems were used to maximize efficiency, economy, and provide a merit system.[18]

Development of position analysis was slower in private business. Among the first to use formal position analysis

methods was Merrill R. Lott in 1924 and Eugene J. Benge in 1926.[19] In business and industry, position analysis has developed from the bottom up. Manual and clerical jobs are easier to define and therefore, easier to evaluate. The managerial jobs are also politically sensitive and this has slowed the use of position analysis. There is a broad range of duties and responsibilities that also make the upper level position more difficult to evaluate. In the last ten years, there has been a definite move toward position analysis of exempt personnel in large and middle-sized companies.[20]

IV. POSITION ANALYSIS IN GOVERNMENT

The Federal Government allows the head of each agency or department to appoint and determine the pay of the employees in his department. The U.S. Civil Service Commission provides direction and guidance for these appointments and the compensation of federal employees.

White collar workers are now covered by the Classification Act of 1949, which replaced the Classification Act of 1923. Each position is placed into a class and each class of positions is assigned a grade. There are now 18 grades, which range from GS-1 to GS-19. The most basic and simplest work is assigned to GS-1, while the director of an agency would be assigned GS-18.[21]

It also publishes an occupational handbook that defines occupational groups that are found in the federal government. The handbook defines 500 different occupations and is kept up

to date. The occupations listed ranged from clerical to psychological to the medical sciences. A title, a code number, and a definition is given to each occupation.[22]

The Civil Service also prepares a position classification standard. This is a description that shows the criteria that justifies the difference between a doctor classified GS-11 and a doctor classified GS-12. A detailed evaluation is done for each job in the classification. The standards are reviewed and revised by the respective agencies involved.[23]

All job evaluations are based on eight factors. These factors do not have the same weight for each job. The factors include the nature of the work, the supervision of the job holder, the guidelines for the job, the originality required, the types of person to person relationships, the nature of decisions made by the job holder, the amount of supervision performed, and the qualifications required for the position.[24]

Most of these standards are in narrative form, but some standards use chart form or have been given numerical values that convert to GS levels. The purpose of these standards is to place all positions in the correct grade and to be able to justify the evaluation.[25]

A typical evaluation is made by the personnel officer. A position classifier will review the job requirements with the incumbent and the supervisor. A regular review is also done by most agencies. Any employee who disagrees with his

evaluation may appeal to the Civil Service Commission. The Civil Service has responsibility for the complete job evaluation system. The Federal Government has other job evaluation programs, but the Civil Service is by far the largest and the best known.[26]

V. POSITION ANALYSIS IN BUSINESS AND INDUSTRY

Scientific management occurred in both Europe and the United States during the latter half of the nineteenth century. Many of these pioneers were engineers; most notably, Frederick Winslow Taylor, in the United States, and Henri Fayol of France. Other notable individuals were Henry Dennison, Henry L. Gantt, Frank B. and Lillian M. Gilbreth, and Mary Follett from the United States; Charles Babbage, Edward T. Elbourne, and B. Seebourne Rowntree of Great Britain; Henry Le Chatelier and Charles de Freminville of France; and Walther Rathenau from Germany.[27]

Frederick W. Taylor was an engineer at the Midvale Steel Works in Philadelphia. Taylor's "Principles of Scientific Management" grew out of his experiments with workers and machines. He tried to devise an analytical approach for organizing work through time and motion studies.[28] His four principles of Scientific Management involved "the development of a science to replace the old rule-of-thumb methods; the scientific selection and then the progressive teaching and development of the workmen; the bringing of the scientifi-

cally selected workmen and science together; and then this almost equal division of the work between the management and the men."[29]

The term scientific management was first used when Taylor testified before the Interstate Commerce Commission. Those who testified used the term management to team production rather than the general term management. Taylor was really speaking of "Scientific Production" when he testified.[30]

Henri Fayol began writing on principles of management in 1900. He was a mining engineer who became managing director of Commentry-Fourchanbault in France. His theory of management was "to manage is to forecast and plan, to organize, to command, to coordinate and to control."[31] Fayol's theory of management was more global than Taylor's, for it dealt with both industrial and government management. Fayol started analyzing the top level of management while Taylor began with the worker. In an address before the Second International Congress of Administrative Science at Brussels, Belgium, on September 13, 1923, Fayol said:

> The meaning that I have given to the word administration and which has been generally adopted, broadens considerably the field of administrative science. It embraces not only the public service but enterprises of every size and description, of every form and every purpose. All undertakings require planning, organization, command, coordination, and control, and in order to function properly, all must observe the same general principles. We are no longer confronted with several administrative sciences but with one alone, which can be applied equally

> well to public and to private affairs and whose principal elements are totally summarized in which we term Administrative Theory.[32]

The job ranking system is the oldest system in use. It represents the first format attempt to determine job values.[33]

Position Analysis evolved from the simplest to the most complex. Another older system refined the ranking system by segregating jobs into general classes and is called the job classification system. This method is used by many small firms and school systems because it is simple and easy to understand.[34]

The first point system for job ranking was developed by Merrill R. Lott, who was personnel superintendent of Sperry Gyroscope. Factors needed in the job, such as education, are given points. This system became popular, because it is simple, easily understood, and easy to administer.[35] In 1955, E. Lanham of the Bureau of National Affairs, found 55 percent of companies with less than 1,000 employees used the point system.[36]

The factor comparison method was developed for the Philadelphia Rapid Transit Company by Eugene J. Benge in 1926. Benge adapted Dr. Scott's man-to-man merit rating system. He identified key jobs and found that trained personnel would agree to evaluations once these key positions were established. This key scale is the basic difference between the point system and the factor comparison system.[37] In his survey of 1955, E. Lanham found that 70 percent of companies with over 1,000 employees used the factor comparison method.[38]

VI. POSITION ANALYSIS IN EDUCATION

Positional Analysis for Administrative Personnel in Public School Systems is the only document found in an ERIC search that relates to position analysis in education. Developed in 1968, it presents an application of position analysis techniques to administrative positions in public schools.

Mahoney developed an approach to position analysis by performing a selective survey of literature and research materials from business, industry, government, and education. His position evaluation plan describes various personnel levels for each of the following factors:

1. Responsibility for planning
2. Knowledge
3. Judgment
4. Managerial Responsibility
5. Scope of supervision
6. Cost responsibility
7. Interpersonal relationships
8. Responsibility for creative work

Robert L. Brownlee categorized administrative responsibilities into two dimensions, function and physical.[40] The responsibilities within the function dimensions as identified by him are as follows:

a. Program
b. Personnel
c. Material

d. Financial

e. Facilities

Physical dimensions are quantifiable and, as such, can identify the degree of administrative involvement in the functional responsibilities. Physical dimensions as he reported them were:

a. Number of instructional levels in which the administrator must work.

b. Number of instructional areas in which the administrator must work.

c. Number of staff members with whom the administrator must work.

d. Number of students with whom the administrator has day-to-day contact and for whom he has responsibilities.

A listing of all the administrative responsibilities within a given district forms the conceptual basis for determining the relative worth of various assignments.

In an effort to locate some school districts that utilize a scientific system, the study team discovered the following:

In a publication entitled "Management Team" by the Elkhart Indiana Community School District, a compensation plan for administrative positions exists wherein administrative positions are assigned a salary factor range which identifies a range for salaries applicable to a given position.[41] The salary factor range is intended to reflect the actual degree of

responsibility in a particular job assignment as well as the expected minimal amount of time required to perform such responsibilities. Such salary factor range takes into account both qualitative and quantitative aspects of a particular job assignment.

The Cupertino California School District, eliminated the qualitative factor. In a study conducted by this school district only factors which could be quantified or measured on an objective basis were accepted and utilized. It was felt by the school district that if qualitative factors were used measurement would be judgmental. This school district believed it was important to avoid even the appearance of subjectivity since the administrators involved might well be suspicious of any move to re-orient pay on a basis other than the traditional method.

Working under the limitation that factors selected had to be capable of quantitative measure, a local committee developed the following four factor point scales which they considered to be of major importance in the administrative work of their principals: (1) School size. This is a major determinant of the scope of the administrative responsibility. (2) Special Classes - This entails overall responsibility for one or more classes designed for the educationally handicapped, bright or gifted, under-achieving, mentally retarded, etc. This and factor three came as close as the committee in the Cuptertino School District could to dealing with the special

problems associated with socio-economic conditions of a neighborhood. (3) Turnover rate - The high turnover rate affecting some areas of the district posed problems of continuity and disruption of curriculum and substantially added, they believed, to the difficulty of the principal's assignment. (3) Cafeteria responsibility - This factor, measured by the number of meals served, was the major time consumer for some but not all principals, since some schools had no cafeteria.

In the Wethersfield, Connecticut Public Schools, administrative salaries are predicted on the worth of each administrative position in the school system as derived from thirteen management factors. They are:

1. Number of staff supervised and evaluated
2. Number of schools
3. Budget preparation and control
4. Facility management
5. Facility complexities
6. Curriculum development, management, evaluation and scope
7. Student conduct, responsibility for
8. Parental involvement
9. Number of students, complexity and scope of interaction
10. Involvement in community affairs
11. The level to whom the individual position answers
12. Responsibility for scheduling time and activities of students, and
13. Extra time constraints.

In an effort to obtain whatever further information might be available beyond that listed with the Education Resource Information Center in the area of education, a survey was conducted of school districts which were listed as exemplary in their utilization of various methods of salary scheduling. These school districts were identified in a publication of Educational Research, Inc., entitled, Methods of Scheduling Salaries for Principals.[42]

Twenty-five school districts were surveyed by a letter (See Appendix A). The team inquired as to what available information they would be willing to release that is utilized by them in arriving at an equitable way to distinguish between the various types of assignments within their district. Specifically, the team was attempting to locate a listing of the various job responsibilities or elements considered in arriving at differentials. Of the twenty-five school districts approaches fourteen responded in one degree or another. While each had its own appropriate classification, ratio or other differentiation, none indicated that they formally had implemented a recognized job analysis procedure.

In the Westchester Pennsylvania Area School District[43] they utilize 10 position evaluation factors. They include:

1. Knowledge required - formal education, special training and experience.
2. Supervisory responsibility - number of people training and experience

3. Accountability - immediate and long range planning, freedom to act, execution of duties and effects of job on end results
4. Relationships with others - contacts with the public, the students, the professional staff and other management team members
5. Financial responsibility - development and control of budget and effects of error.
6. Physical plant responsibility - layout, maintenance and housekeeping
7. Leadership responsibility - initiative, stability, judgment, and motivating and directing others
8. Communications responsibility - public and private information
9. Job conditions - physical, mental and coordinative efforts, time spent on the job, problem solving and decision making.
10. Organizational responsibilities - selection, training and assignment of personnel.

Some of the more typical responses from superintendents and personnel administrators received, and somewhat representative of the majority responding to the survey, can serve as a summary. They include:

1. "I'm afraid we cannot help you very much with criteria or guidelines. I use some objective information in my determination of a specific salary but, frankly, it is mostly my subjective judgment."

2. "Our salaries have been increased for the past six years by a straight across-the-board percentage increase. Therefore, things could stand some revising here, but I do not know when or how this will come about."

3. "We did recognize the problems you are considering, but chose to throw them aside and implement our new schedule based on the hierarchy as it existed at that time. We fully recognize that inequities which developed over the years are carried forward with us today, but several years ago, we retained XYZ44 company for a position, classification, and salary study, and their entire effort was rejected by our Board."

VII. AN OVERVIEW OF OUR POSITION ANALYSIS SYSTEM

INTRODUCTION

The review of literature revealed four distinct job classification systems that embody all methods of position nalaysis.

This section of the study will describe the structure, procedures, strengths, and weaknesses of each system. The four generic systems identified in the literature are usually referred to as:

1. Ranking System and its modified version, Pair-Comparison Rankings
2. Classification System
3. Point System
4. Factor Comparison System

The systems are listed in their order of development and sophistication, the factor system being the most recent and containing the most complex methodology. The four major position analysis systems were subjected to an in-depth analysis based on specifically pertinent criterion taken from the literature. This is done in a matrix analysis approach. Findings from this analysis were further scrutinized through an interview with a professional compensation manager from the corporate sector.

THE RANKING SYSTEM:

The oldest and most simplistic of all postion analysis systems is the Ranking System. Organizations within the profit and non-profit sectors have invariably ranked positions into hierarchies. However lacking in formal methodology and subjectivity, positions have been ranked into a hierarchy of relative worth. The most simple "pecking order" listing of jobs/positions within any organization utilizes the rudimentary concepts of the ranking system.

The intent within this approach is to place all jobs into a top-to-bottom relationship. This hierarchial listing would show which jobs are to be valued higher than others and subsequently paid more or less in accordance with their relative worth within that hierarchy.

The process involves comparing job A with job B. The evaluator(s) then subjectively judge which job is more difficult. When this determination is made, a third job C is compared to A and B. A similar determination is made with respect to

the relation of job C to A and B. This process continues until all jobs have been ranked from most difficult to least difficult.

Despite the apparent lack of objectivity, a group of experienced evaluators can be extremely, if not surprisingly, accurate in their assessment of various positions.

The method of force-ranking a group of positions into a hierarchy of relative worth is deceptive. The process is not without talent. Illustrative of this is that, superficially, the Ranking System implies a disconcerting simplicity. Actually, the simplicity of its process disguises what Sibson believes is its greatest weakness:

> The system does little to guide the judgment of the evaluator. There is a tendency to judge each job on the basis of its dominant characteristic, so that inconsistencies can multiply.[45]

It must be remembered that the ranking system can indicate only that one job is more difficult than another, without the benefit of criterion specifying why or how much more difficult it is.

Another obvious disadvantage with this system is the need for objectivity. The system, by its nature, invites the personal biases of the evaluator(s). It has been seen time and again that separating personality from position is more than a superficial problem. More apparent is when the evaluator(s) compare performances of two people, predecessor and successor, and has difficulty recognizing and accepting the fact that the

person, not the job, has changed. Though job descriptions may or may not be used, the evaluator(s) should have a broad conceptual overview of the job and its position within the overall hierarchy. Ideally, the top executive and his immediate subordinates would form the evaluation committee.

This situation would immediately negate another of the Ranking System's apparent advantages; namely economy. One need only multiply the hours away from their respective functions by the hourly rate these individuals receive to reach the quick conclusion that this system is not inexpensive. If a group of lower echelon functionaries are assigned only to a relative degree, continuing to prove that the Ranking System is not inexpensive.

Not only is this procedure expensive on an initial cost basis, but the system must be maintained. Position evaluation is never, or can it be allowed to become, a static situation.

Jobs and positions change. Most organizations are in a continual state of flux. Jobs, positions, and relative worth hierarchies require periodic scrutiny. The job ranking process is arduous and time-consuming. Since the ranking system is basically subjectivity, it is difficult to defend. This presents another shortcoming. Unless strictly mandated, application for duty on job evaluation committees is not overwhelming and incumbent tenure is limited, at best.

As a new member arrives, the slow process is slowed further, as various rationales for previous job assignments are

reexamined.

Time provides yet another constraint. High-ranking people in an organization have limited time for the functional responsibility of the job evaluation committee. This factor, plus the repeated attempts required to find meeting times compatible to the schedules of all members of the evaluation committee can become a stressful situation resulting in the definition of the process.

The ranking system is subject to continuous subordinate supervisor-employee challenge. Lacking objective criteria, supervisor and employee challenges can and have become serious sources of negative morale with all the negative implications and ramifications. Berg, in Managing Compensation, asserts that "acceptance is the key reason for performing evaluation."[46]

If acceptance and understanding of the process is not what it should be, the entire program will erode and ultimately fail.

Companies and organizations have been almost irrevocably polarized as a result of this lack of understanding and acceptance on the part of the organization's population. The negative consequence has occurred in organizations where evaluation committee members were respected and, in general, highly-placed executives.

Berg feels that the subjectivity of the ranking system is its major failing:

> Job evaluation is a very sensitive process. To do it properly, it must be done diligently, consistently, and with objectivity. If for no other reason, job ranking fails as a job evaluation tool because of its lack of objectivity.[47]

Several approaches have been attempted in an effort to refine the Ranking System. One of these is called a pair-comparison ranking. This apprcach presents evaluators with a listing of paired jobs, as indicated in Figure 4.

Figure 4: PAIRED-COMPARISON RANKINGS

(Underlining indicates the higher-ranked job in each pair)

Bookkeeper	Clerk-Typist A
Clerk-Typist A	Secretary
Telephone Operator	Mail Clerk
Clerk-Typist A	Telephone Operator
Telephone Operator	Secretary

As indicated above, evaluators are given a list that pairs every job with every other job and are asked to select which job in each pair ranks higher. In Figure 4, the selection is Bookkeeper over Clerk-Typist A, Secretary over Clerk-Typist A, and so on. The evaluators' rankings are analyzed to produce a master list.

Another refinement of straight ranking is the factor-guided ranking technique. Under this system, evaluators rank jobs not only in terms of overall difficulty, but in terms of their difficulty with respect to certain factors--such as knowledge and physical effort required. When the evaluation is completed, a separate ranking is established for each factor.

Factor-ranked jobs can be grouped according to similar levels of difficulty under each factor. When this is done, "degrees" of difficulty are established under each factor. Under a Ranking System, these factor groupings serve as an audit or check against overall rankings. The process is, however, a way of building a factor comparison system, in which the degrees that are established are assigned point values.

CLASSIFICATION SYSTEM:

This system is basically the method used by the United States Government. It has been adopted by many other governmental bodies.

This method, sometimes called the "grading" or "rating" system, has some apparent similarities to the Ranking System. This system rates, grades, or classifies each job against a predetermined yardstick or, more precisely, a compensable skill factor. Of maximum importance is the validity of the compensable factor or yardstik.

Great care must be exercised in the determination of whether the selected yardstick represents what should be measured. The evaluator must take care to select a compensable factor that truly equates the level of contribution within the overall function of the organization.

In a job where great psychomotor skill is required, the evaluator must, objectively as possible, ascertain its degree of contribution against a job not requiring such a

high degree of manual skill.

The high dependence on the key compensable factor obviously contains the potential for a great amount of work. One need only reflect on the necessary effort of describing all the various degrees of skills in all of the jobs in a large company.

What might seem a plausible circumvention of the single compensable factor would be the development of several variations of the one yardstick. This requires a thorough degree of subjective analysis, which inevitably leads to redundancies and invites, according to Berg, "all kinds of gamesmanship."[49]

The Classification System is essentially a comparing process that utilizes the following format. Like the Ranking System, the Classification process must begin with job analysis. Therefore, job descriptions are written for each job. The jobs are then classified by kind; i.e., shop, clerical, sales and management. It is now necessary to decide upon compensable factors. Several factors may be selected for all jobs such as budget, amount of supervision, error ramification, initiative, experience, and educational requirements. The next step requires is the development of grade descriptions. These descriptions indicate each class in terms of amount or level of compensable factors present in the job. Examples are provided below:

Sample Grade Descriptions:

Class A: Supervisor: Responsible for 1-10 people. Budget accountability, 1-2 percent of division budget. Educational Requirement, 1-2 years beyond high school.

Class B: Department Head: Responsible for 1 supervisor. Budget accountability 3-5 percent of division budget. Educational Requirement, College Degree.

The last step in this process is the classification of jobs. This involves comparing job information with job descriptions. Each job is placed in its appropriate slot by the process of checking its job description against the grade description.

The first Civil Service Commission was established in 1871 and, using the Classification System, initiated a situation of patronage and inequity within the Civil Service Commission. Though this method of Position Analysis proved to be functionally stable, it also became self-perpetuating.

A reservation of the Classification System is that it ultimately breeds an autocratic form of administration. According to Berg, this is the "dilemma of the Civil Service Situation."[50] The essential problem is that a certain few evaluators are responsible for the "words" that become extremely important and these few really control the evaluations.

Despite this and other failings, the Job Classification System does have some applicability. This is so in situations

wherein large numbers of employees work in relatively few jobs. In recent years, some companies have utilized this system for various levels of professional jobs, essentially defining levels of function and typical responsibilities accountable to jobs in each level. Sibson feels that the Classification System is finding increased use in the "business disciplines, such as Personnel, Accounting, Law, Industrial Engineering, and Investment Work."[51]

POINT SYSTEM

The point system is based on compensable factors. These factors could be termed reasons for paying a job. The number of compensable factors varies from plan to plan. The number of compensable factors must be decided upon by the organization. Generally speaking, point plans have anywhere from a minimum of three compensable factors to eleven, as used in the point plan developed by the National Metal Trades Association (NMTA).[52] Research has revealed that an oil company in Oklahoma has twenty-one compensable factors in its plan.

The greatest asset of a point system is its objectivity. It is not surprising that the vast majority of organizations that have formal job evaluation programs utilize some form of a point plan. While it is a difficult plan to develop, its many advantages make it highly attractive to management.

The most difficult aspect of point plan development is the identification and defining of appropriate compensable factors. Despite the wide spectrum of compensable factors quoted above, most plans utilize three to seven compensable

factors. Whether the task of identifying and defining meaningful and realistic compensable factors falls to an individual or a group, the effort is, in reality, an extremely difficult one.

According to the Handbook of Wage and Salary Administration,[53] the factors must represent the significant requirements, responsibilities, circumstances, and conditions which determine the content of the particular jobs to be evaluated and should be selected with the following considerations in mind:

ACCEPTABILITY: to the parties of interest (top, middle, and lower levels of management; the employees, and the union, if it is involved), since the factors are the basis of evaluation and the objective is to establish equitable relationships which will be accepted with confidence.

APPLICABILITY: to the group of jobs to be evaluated. Each factor should contribute to the evaluation of at least one job (and preferably more).

DISTINCTIVE NATURE: Each factor should represent a separate element of job content, without overlapping another. It follows that each factor must be clearly defined.

NUMBER OF FACTORS: It might seem that the greater this number, the greater the refinement of evaluations. This is true, but only up to the optimum number, beyond which the danger of overlapping increases, with all of its negative consequences. A balance must be struck, and opinion and practice vary widely as to the optimum number.

RATABILITY: i.e., jobs to be evaluated should carry different degrees of the factors by which they are evaluated.

EASE AND ECONOMY OF ADMINISTRATION: tends to vary with the number of factors. Reduction of factors should not be carried too far. This can lead to all encompassing factors and it becomes subsequently difficult to define clearly and comprehensively the areas covered by each factor and, therefore to assure accurate, consistent, applications of factor scales.

RELATIVE VALUES OF FACTORS:

Belcher regards the determination and defining of the relative degrees of each factor as the "crucial" step in the point system. These, he states, are the "inch marks on the ruler" and, unless they are clearly marked and meaningful, resulting scales will produce unreliable and inaccurate ratings.[54]

Degree definitions should utilize terminology employees can understand. An example is as follows:

FACTOR: RESPONSIBILITY

0 None

1-2 Oversees work for a group doing routine work under direction of a supervisor. Not responsible for methods (responsible only for proper completion of assigned work).

3-4 Supervisor of ordinary work group under supervision of a manager. (Doing routine work, not responsible for methods).

or

Manager of a small independent department doing routine work

or

Assistant to the head of a large division

5-6 Supervisor of a large division in a large department doing routine work. Somewhat responsible for methods. Responsible to a manager and an officer.

or

Supervisor of a group doing individual work under a manager or an officer

or

First assistant to the head of a large division

7-8 Manager of a large department doing routine work. Responsible for methods to Controller and responsible for all workers.

9-10 Manager of a department doing individual work (responsible for methods and workers).

or

Manager of a large division doing routine work (responsible for methods and workers).

Many organizations have adopted the eleven basic factors from the National Metal Trade Association point system:

1. Education
2. Experience
3. Complexity of duties
4. Supervision Received
5. Errors
6. Contact with others
7. Confidential Data
8. Mental or Visual Demand
9. Working conditions

10. Characters of Supervision

11. Responsibility[55]

This listing represents the factors utilized in most formal point systems to various degrees of inclusiveness.

The Point System also has inherent disadvantages. It is a ponderous and difficult system to initially implement and subsequently maintain. It encourages the accumulation of non-utilitarian compensable factors. It contains a high potential for semantical difficulty in the wording of compensable factors which, in turn, can lead to illogical factor weightings and inconsisten point progressions.

FACTOR COMPARISON SYSTEM:

Widely used in business, the factor comparison method is an evaluation vehicle in which various factors are compared on a job-by-job basis, without definitions for the various degrees.

Essentially, it is necessary to analyze and rank all jobs in terms of one factor, then rank all in relation to a second factor, and so forth, until point rankings have been established for each of the factors used.

The term "factor comparison" comes from the fact that the system is predicated on the comparison of jobs with other jobs to determine which jobs contain greater amounts of identifiable compensable factors.

In a "pure factor comparison" system, point allocations are not used. Money, instead, is the common quantifiable denominator.[56]

This method utilizes an initial ranking procedure. This is done to classify all key jobs within the organization under each factor. This establishes a rank order of these key jobs. This approach also allows for measurement of the distance between each job according to corresponding elements in other jobs.

Key jobs are scrutinized for careful selection, because the entire approach will be based on them. These rankings are usually displayed on a series of charts for the comparison effect.

The initial step is to compare the key jobs one-to-one against the selected compensable factors. The key jobs are ranked with respect to the degree that the compensable factors are present in them. Each key job is ranked against each compensable factor.

The next step is to estimate how much of the current wage of the key job is allocatable to each compensable factor. Obviously, this assessment, however judgmental, is extremely critical. It assumes that all key jobs are correctly paid.

Another chart is constructed at this point. This graphically represents the placement of key jobs in relation to the amounts of money to be allotted to them. This scale can then be used to place all other jobs into relationships for subsequent evaluation.

This format makes for an immediate job pricing approach. It remains a matter of comparing the rest of the jobs in the

comparison chart with the key jobs. The rate paid is simply the accumulation of all rates in the several compensable factors.

The factor comparison system has a number of advantages. It is a deliberate process. It requires a meticulous approach in the selection of the key jobs. The comparing and cross-checking of these selected jobs demands careful scrutiny and preciseness. The immediate pricing aspect obviates the need for point conversions. This system does not lend itself to the semantical difficulties of other position analysis system. Its implementation process makes the plan uniquely tailored to the organization using it.

The system has a number of disadvantages. It is a complex plan, that invariably requires considerable study of the methodology in order to implement it. This has a far-reaching ramification. If those implementing and administering the system must study the process carefully, subsequent explanations to employees usually prove futile. This usually results in the system receiving constant challenge by employees.

Despite the objectiveness of the system, its essential premise is based on two subjective assumptions.[57] One of these is the selection of key jobs. If the jobs chosen are not really key, the whole system is shaky. Another assumption is that all rates currently being paid the key jobs are correct. The system is extremely inflexible. The introduction of new jobs is difficult, since all is contingent on the

key jobs and the other jobs relationship to them. It is an extremely costly plan to implement, maintain, and administer.

VIII. INTRODUCTION TO COMMERCIALLY AVAILABLE POSTIION ANALYSIS SYSTEMS

A survey of the literature revealed that position analysis is a widely accepted tool of management. Of the commercially available systems, the Hay Method, developed by Samuel Burk and Edward Hay is well known and recognized in banking, insurance, and industry. School districts have just begun to use formal position analysis instruments. D. F. Beaven has developed an approach for school use. Other commercial instruments are available, the most widely marketed being the Position Analysis Questionnaire (PAQ). These commercially available instruments will now be reviewed.

THE HAY METHOD

One of the most acceptable methods of position analysis is the Hay Method. The Hay Method of position analysis was greatly influenced by the factor comparison method developed by Eugene J. Benge in 1926, when he was employed by the Philadelphia Rapid Transit Company. Benge believed the point system was limited, and so he worked out a factor comparison system of job evaluation.[58] The factor comparison method was expanded by Samuel L. H. Burk and Edward N. Hay. These three men co-authored one of the first books on job evaluation.[59]

Four interviews were held with directors of human resources at companies chosen because of access to key personnel.[60] Two of the firms were industrial companies based in Fairfield County. Both of these Fortune 100 companies have been using the Hay Method for a number of years. Both directors had been appointed after the Hay Method was adopted. All materials dealing with Hay and position evaluation were classified. Interviews were held under the condition that the name of the company would not be revealed. The Hay Method was used in very much the same manner by both companies with great stress being placed on excellent job descriptions. These job descriptions were revised annually by the job incumbent, reviewed by his supervisor, and accepted by the director of human resources or his subordinates.

The third company interviewed was a large New York City Bank that had been using Hay for a number of years. Some materials were supplied that are used to train personnel to use the Hay Method. Again, the bank stressed the need for excellent job descriptions to aid in the evaluation of positions. Personnel are trained at regular intervals so that the Hay Method can be administered by knowledgeable people.[61]

The fourth company interviewed had just adopted the Hay Method. This method was chosen by the Chairman of the Board because one of his directors is using Hay and enthusiastically recommended it. The second reason for choosing Hay was that

it is accepted throughout the insurance industry. Hay also provided computerized information for external salary comparisons both on a national and local level.

Hay provided a consultant who worked with the company to introduce Hay into the firm. This should have taken about six months but, due to illness, took almost a year. The chief executive officer of the company was interviewed and a job description written for his position. By means of questionnaires, interviews, and job descriptions by the incumbents, acceptable job descriptions for high level personnel were developed, and their positions were slotted on the Guide Charts. A committee of high level officers was established to evaluate positions as far down in the company structure as they had knowledge. The director of human resources stressed that this committee should be made up of high level personnel because with high level involvement all other employees find position analysis more acceptable.[62]

Although Hay is only one of many position analysis methods, it seems to have found great acceptance in business and industry in the United States today. This has a snowballing effect on other companies. Hay consultants have been employed by large school systems such as Chicago to evaluate both positions and salaries. Again, this is classified information and not available to the team.

The Hay Guide Chart-Profile Method of position analysis evolved over many years. This method provides a systematic

method of evaluation of all jobs in a company. Before 1950, Edward N. Hay and Associates used a type of evaluation based on the factor comparison method. The Guide Chart-Profile stresses complete understanding of job content and direct comparison between jobs to determine their relative value.[63]

The Hay Method has chosen know-how, problem solving, and accountability as the three factors that make up the total job content. These terms are defined as

> Know-how is the sum total of all knowledge and skills, however acquired, which are needed for satisfactory job performance. Problem solving is the amount of original, self-starting thinking required by the job for analyzing, evaluating, creating, reasoning, and arriving at conclusions. Accountability is the answer-ability for actions and for the consequences of those actions.[64]

Accountability is the most difficult of the factors to assess by the job holder. This factor tells what the job produces, the amount of freedom to act in this job, and the effect of this job on the end results.[65]

A written job description is necessary to give a thorough understanding of the essence of the job. This description gives both external and internal conditions and objectives. The process involved in the Hay Method begins with job descriptions of selected benchmark jobs. Each job is evaluated numerically based on multiple judgments of the three factors which make up each job. This quantitative system used by Hay has a geometric scale with a ratio of about 15% between terms in the chart. The rationale for the

choice of a geometric scale is that salary changes between job levels on a geometric rather than an arithmetic scale.[66]

The multiple judgment of the job comes from three independent measures: an evaluation committee, ranking and rating bench mark jobs, and a profile of a job.

The evaluation committee is used when the Hay Method is first adopted by a company. The higher in the corporate structure the committee members are, the more effective the committee will be when upper-level management positions are evaluated. This committee can be discontinued once the evaluation is completed.[67]

The ranking and rating of bench mark jobs is usually done in terms of "know-how", after a rank order is established. Rating depends on the degree of differences seen between two jobs. If a difference is only just sensed, there is probably a one step difference. A difference that is preserved is a two step difference, and a difference that is clearly seen without study is probably a three step difference. Greater differences are determined by comparing jobs that do not exceed three steps. The lowest know-how job is arbitrarily given a point number. As the higher jobs are given step numbers (1, 2, 3, 4, 5, etc.), these numbers are converted to the geometric numbers.[68]

Profiling is a measurement that shows the proportion of know-how, problem solving, and accountability that make up the total job content. A typist is primarily profiled as know-how, a president's profile is heavily weighed toward

accountability, while a researcher tends to be mostly problem solving. The evaluator gives a percentage to each factor. The committee of evaluators might decide a position is 80% know-how, 10% accountability, and 10% problem solving. This committee decision can be an average or a compromise decision.[69] Again, to have a reliable profile, the job must be understood. The profile is usually honest and objective. The profile is the final test of job description and position analysis.[70]

The latest addition to the Hay Method is the Guide Charts. There are three grids, one for each factor: know-how, problem solving, and accountability. Examples are included. These Guide Charts provide another measurement, that of job slotting. The definitions of varying degrees of job elements are valid for all functions of business and other organizations. Guide Charts are not created for individual clients because they are appropriate for different functions and businesses. Hay will alter the language of the charts if necessary, but this is not usual.[71] In the four examples furnished by human resource directors the charts are almost identical.

Guide Charts are now used as a starting point for position analysis. First, the evaluator gains a thorough understanding of the job content through job descriptions and interviews. Next, the job is slotted on the Hay Chart grid and the value is selected in each cell. Finally, the point value for each factor, know-how, problem solving, and accountability is added together for the total evaluation

points. In order to check the points generated by the Guide Charts, percentages of know-how, problem solving, and accountability are developed into a profile.

After forty to fifty jobs are evaluated the group is reviewed for inconsistencies and corrections can be made. Hay Associates claim that once the Hay Method is learned it is simple to use, but it is not a do-it-yourself method. Personnel directors agree that this was a complex process, particularly when introduced into a company.

The Hay Method is also used to establish company salary structures and to compare external pay structures. Hay believes this to be an important advantage for companies using the Hay Method. Personnel directors agreed that this was a valid evaluation.[72]

Some of the advantages of the Hay Method of position analysis are that it is based on business concepts that are easy to define and use. Hay relies on many independent judgments and provides a framework for evaluation decisions. The Hay Method demands orderly thinking about job content. It provides a vehicle for interrelating all kinds and levels of jobs, and it also deals with working conditions.[73]

The Administrative Assessment Program

The Administrative Assessment Program (AAP)[74] was designed by Gerald Robert Wilson, an Administrator in the Mount Clements (Michigan) Community Schools. It gained the unanimous approval of the Mount Clements Administrative Association and was later selected by the Superintendent and the Board of

Education as the official tool for the assessment of the administrative responsibilities in the school district. Presently, the document is published and available for school districts on a nation-wide basis to conduct their own self-assessment. Each complete packet contains all the needed materials for assessing twelve (12) administrative positions.

The intent of the publication is to allow superintendents and administrative groups to take an objective look at administrative responsibilities within their school districts. Recognizing that a) individual roles are often not static from year to year, b) special projects being initiated in one building and not in another, c) projects discontinued, d) urban renewal caused enrollment shifts, e) hot lunch programs initiated, f) a principal gaining the aid of an assistant principal on a g) a principal being asked to administer two small buildings instead of one large are just a few of the numerous changes that occur necessitating an annual evaluation or review of the responsibilities of various administrative positions within a school district. The AAP is an instrument that can assist in comparing administrative responsibilities.

It can help administrators face problems rather than to recognize their existence.

The AAP assesses and scales the main factors of administrative responsibilities offering a way of assessing degrees, as well as amount of administrative responsibilities. The

device is basically an objective method for comparing roles of diverse nature. It offers a rationale for multi-level administrative structure allowing for some reflection of the uniqueness of the community and offers the opportunity for local administrators to participate in their own assessment.

In the procedures developed by Wilson, it is suggested that the superintendent or administrative leadership appoint an "assessment team". The authors of this paper recomment that the team consist of a broad representation of the various administrative positions in the school district to be reviewed. The publication consists of several feed-back documents to be utilized in gleening the perception of the incumbents. These feed-back sheets then allow one to review his/her own assignment covering the various degrees within five major responsibilities. They are the number of students served, the number of professional personnel, the scope of one's assignment ("district-wide" to "some responsibility but less than a single building"), plant responsibility from "primary for a large facility" to "no responsibility for a building site or plant") community involvement particularly in terms of the amount of time required to be spent beyond one's regular job (not including time spent on committee work or special interests) and a last category reserved for unique considerations caused by uniqueness and special nature of the assignment. Within each of these respective categories there is a range of 0 to 5 points, depending on the

degree of one's involvement.

Douglas T. Beaven, Associates

D. F. Beaven, Associates[75] has arrived at the following five measures of job scope and responsibility which assist in differentiating one assignment from another.[76] These five factors are felt by Mr. Beaven to be able to encompass descriptively the variety of administrative positions in any school district and can be utilized to measure different jobs.

1) Complexity of problems - A measure of the mental demands required by the position in terms of problem-solving skills (the depth of analysis, original and independent thinking required).
2) Expertise and skills - This factor is a measure of the knowledge and experience necessary to carry out the duties and responsibilities of the positions satisfactorily.
3) Administrative responsibility - A measure of the responsibility of the organizing, directing, motivating and evaluating programs, activities and/or personnel. This factor involves not only the number of persons supervised but the administrative authority and the diversity of functions coordinated.
4) Working relationships - This is a measure of the responsibility for directing and maintaining working relationships with groups within or outside the district and who may affect its operations, plans or

image; i.e. other staff, the Board of Education, other districts and agencies. Factors to be considered are the positions demand for diplomacy, persuasiveness and the level of frequency of contacts.

5) Fiscal responsibility - A measure of the actual and/or potential impact the position has on the district short and long term operating costs, capital expenditures and assets (amount of dollars involved and extent to which costs can be controlled).

Ratings are achieved from the points awarded for all the categories.

Each of the various assignments can be recognized by the summation of points according to the degree of involvement within the specific factors (See Appendix B)

This is not an uncommon approach in education. Many school districts use a similar method for systematizing and establishing salary rates for extra curricular assignments.

Position Analysis Questionnaire

E. J. McCormick developed an instrument termed the "Position Analysis Questionnaire" (PAQ).[77] The PAQ is a structured job-analysis questionnaire that consists of 194 job elements. Any job or position can be analyzed in terms of these elements, either in a checklist fashion -- by indicating if the element does not apply or by use of a six-point rating scale -- measuring the importance of the element to the position or job.

The job elements are of a "worker-oriented" nature in that they tend to characterize or strongly imply the human behaviors that are involved in jobs as contrasted with elements of a "job-oriented" or "task-oriented" nature, which deals with the technological processes of jobs.

Some of the human behaviors include: the various possible sources of job information, the various mental processes required to perform jobs, and the various responses or actions involved in jobs. Other job elements deal with inter-personal activities and work with the work situation in context and with certain miscellaneous aspects of work. The arrangement of the job element follows the organization indicated below (an example of the job element in each of these divisions is given for illustrative purposes).[78]

DIVISION OF PAQ	EXAMPLE OF JOB ELEMENT
1. Information Input	1. Use of Written Materials
2. Mental Processes	42. Coding/decoding
3. Work Output	65. Use of Keyboard Devices
4. Relationships with other persons	103. Interviewing
5. Job Context	136. Working in High Temperature
6. Other Job Characteristics	165. Irregular Hours

The nature of job elements of the PAQ make it possible to use the PAQ for analysis of virtually any type of position or job. At the same time, it should be pointed out that the PAQ is not intended to serve as a substitute for all of the uses for which traditional job analysis data are used.

For example, it cannot replace a job description[79] in characterizing the technical processes or operations that are performed by job incumbents. On the other hand, within the spectrum of the types of human behavior covered by the PAQ, data on positions or jobs can be quantified by the use of appropriate computer programs. These job dimension scores can be used as a basis for estimating both the aptitude requirements of the job and, if necessary, the compensation rates for jobs.

These and other inventories provide a tool for identifying significant tasks and worker requirements. The U.S. Department of Labor developed a publication entitled Task Analysis Inventory.[80] Their data was obtained from job analysis studies, published occupational literature, professional association trade unions, government agencies and private organizations and establishments. In the publication one can start from a ready made list and adapt to meet the various needs of the study to be undertaken in their respective community. This inventory offers a quick method of assessing the needs for, or feasibility of job restructuring without undertaking detailed studies. They certainly can serve as a framework for task identification analysis. The National School Boards Association also provides a ready made check list from which school districts can begin their study.[81]

A few school districts have adopted a modified position analysis approach. Commercially available systems are readily available and have been used in the business sector for a

number of years. These tools can be adopted or adapted by school systems but management should be aware that the educational climate differs from the business climate as does one school district from another and these differences must be considered before a specific position analysis system or format is adopted.

SUMMARY

The literature search revealed considerable data regarding aspects of organizations in both the public and private sectors. The significant differences between business and public organizations identified in this phase of the study are critical considerations for subsequent analysis and determination of means by which position analysis can be employed in public school systems. There are sufficient processes common to all organizations and expert opinion suggests the functions of top level management are sufficiently congruent to prompt optimism regarding transfer of the position analysis methodology to public school systems.

The Six-Box Model of organizational diagnosis developed by Weisbord[82] provides a tool for comparing features of business and private organizations as well as a frame of reference for determining the necessary considerations for transferring a business practice to public school systems. The differences between business and public sector organization's prompt caution about the wholesale adoption of a commercial product or an established business practice for use in public school systems.

Four generic systems of position analysis were identified. Several consultant services and commercially available position analysis methods were discovered through personal contacts in business and education, and in the literature. Despite the availability of these methods and services, most public school systems continue to employ rather primitive and unsophisticated procedures for developing a job network within their organizations. The next section of this study will describe the process for analyzing the data accumulated in this section and for deriving implications for adapting position analysis to public school settings.

CHAPTER III

PROCEDURES

I. Introduction

The literature review presented in Chapter II identified aspects of organization common to both the public and private sectors. Pertinent literature relating to the history of position analysis was reviewed as well as literature about position analysis in government, business, industry and education. The Study Team drew substantially from the literature in subsequent analyses to conceptualize the efficacy of position analysis in educational settings.

The review of literature confirmed the perceptions of the Study Team that position analysis in education was both applicable and appropriate.

Two questions were posed by the Team. Is position analysis appropriate for use in public school systems, and what criteria should be used in adapting position analysis?

II. Data Collection and Analysis

The Study Team conducted a comprehensive review of the literature as it pertained to such areas as:

1) The overview of organizations and bureaucracies,
2) characteristics of public and private sector organizations,
3) historical development of position analysis,

4) position analysis in government,

5) position analysis in business and industry,

6) position analysis in education,

7) an overview of the four major position analysis systems, and

8) commercially available position analysis systems.

The information derived from these sources provided the basis for the following analyses:

1. The Study Team compared the distinctive features of public and private sector organizations. This comparison was accomplished in three steps. Distinctive organizational features were identified for both the public and private sectors revealed in the literature search. Next, a consensus of the Study Team was obtained relative to the public and private sector organizational features within a framework of the Weisbord Six-Box Model organizational processes. A matrix was constructed to display accommodations that might be required to adopt position analysis in public schools.

2. The impact of position analysis on organizations was determined. This was accomplished in four steps. Functional elements of position analysis as revealed in the literature search were identified. These elements of position analysis were categorized according to the Six-Box processes through a consen-

sus of the Study Team. The applicability of position analysis to the Six-Box organizational processes were then listed. Finally, implications of position analysis as a means for organizational development were derived as a result of this analysis.

3. The four generic position analysis systems were evaluated against identified implementation criteria. This was accomplished in four steps. The purposes and use of each of the four major position analysis systems were identified through the literature review. The Study Team established through consensus decision implementation criteria for using position analysis systems. Interviews of professionals in the wage and compensation field were conducted to corroborate the implementation criteria. The Study Team then analyzed the extent to which each of the four major position analysis systems satisfied the identified implementation criteria.
4. A comparative analysis of the four systems of position analysis in relation to the purposes of organizational development was conducted in two steps. A table was developed to summarize and relate the four systems of position analysis against the identified organizational features. These features were categorized according to Weisbord's Six-Box Model

and utilized in the second analysis of these procedures. The Study Team then determined through a consensus which purposes of organizational development each of the four systems of position analysis satisfied.

These procedures which have been described above constitute the basis of this study. In Chapter IV, the findings of this study will be presented.

CHAPTER IV

PRESENTATION OF FINDINGS

I. Introduction

Data accumulated in Chapter II contribute extensively to the analyses performed and to the findings reported in this section of the study. Two questions were posed at the outset of the study.

1. Is position analysis appropriate in the public school setting?
2. What criteria should be used in adapting position analysis for use in public education?

In order to answer the first question two analyses were performed. These analyses utilized Weisbord's Six-Box Model of Organizational Diagnosis.[83] Weisbord's organizational processes are common to both business and public sector organizations. The study team conceptualized a tri-dimensional tool built upon Weisbord's model in order to bridge business and public service organizations. This tool is illustrated below.

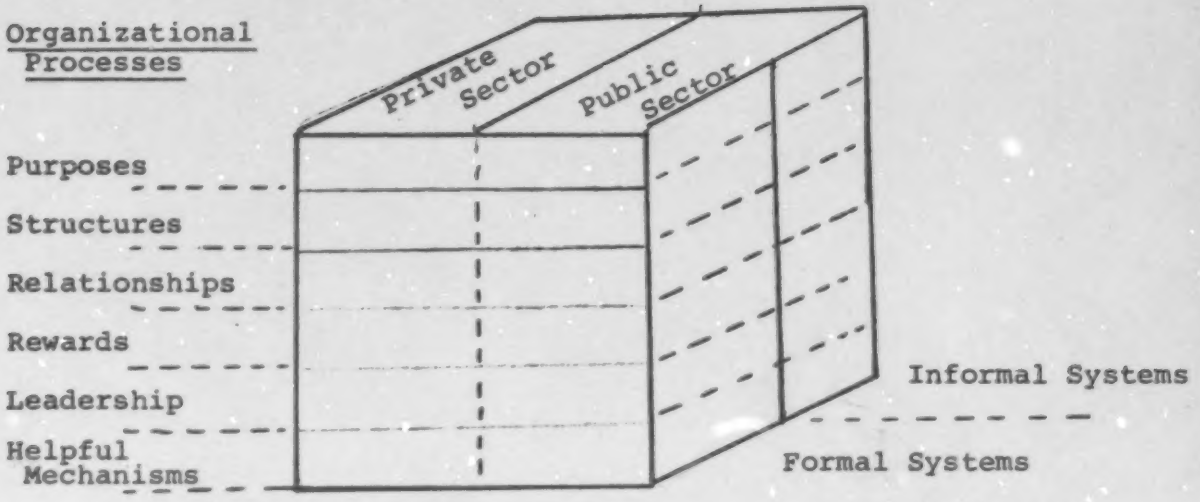

FIGURE 5

Organizational Processes--Formal/Informal-Private/Public

II. Analysis of Public and Private Organizational Settings.

The characterization of business and public sector organizations by authoritative sources cited in Chapter II of this study enables a systematic comparison of their distinctive features. The results of this comparison identifies the major differences between organizations in the public and private sector. A matrix was constructed with Weisbord's six organizational processes placed on the vertical axis and on a two column horizontal axis, one each for the private sector and public sector elements. The study team identified dichotomous features of business and public sector organizations from their literature search. These features were placed in an appropriate cell of the matrix through a jury-type approach that sought study team consensus

on each item. The results of this analysis are displayed in Table 1.

This analysis produced eighteen distinctive features that separate private and public sector organizations when the organizational processes of the Six-Box Model are used as a frame of reference. These features are explained as follows within each organizational process.

PURPOSES

Within the purposes construct of the matrix four dichotomous elements were identified. These elements are:

1. There is little, other than superficial agreement on goals and purposes in the public sector whereas this is the mainstay of business practice. It is necessary to examine goals for clarity and commitment.

2. The lack of a need to compete for clientele can make public organizations blind to their alienation from the people they are supposed to serve. There is a need to solicit and process feedback in order to help the organization focus on the need for clarity of purpose.

3. Professional autonomy and a lack of functional interdependence reduces organizational commitment in the public sector. There is a need to know when a need for interdependence exists; it cannot be expected in day-to-day performance.

4. Public sector professionals are bound by their training, code of ethics, guilds, and associations. Their professional identity can shield them against intrusions on their autonomy. This limits commitment to the organization and its purposes. The professional is in the organization but not of it.

SIX-BOX MODEL ORGANIZATIONAL PROCESS	DISTINCTIVE FEATURES OF THE PRIVATE SECTOR	DISTINCTIVE FEATURES OF THE PUBLIC SECTOR
1. PURPOSES (Formal goal clarity and informal commitment to those goals)	Market competition Profit motive Vigorous confrontation Tangible products High level interdependence Product product Market Analysis	Built-in clientele Ambiguous goals Differences rarely Human services Professional autonomy High percentage of professional personnel Rare solicitation or processing of feedback.
2. STRUCTURE (Formal organizational chart and informal ways in which work gets done)	Integration of differentiated tasks Results oriented Organize for role clarity Interactive organizational Structure	Bureaucratic organization Means oriented Task differentiations Autonomous sub-units
3. RELATIONSHIPS (Who deals with whom on what issues and the quality of those relationships)	Conflict management Collaborative planning	Conflict is "bad" Focus on definition and function
4. REWARDS (Formal incentive system and informal support for achievement)	Managers judged by how well they appropriate resources Smaller, better managed empire is reward Quality of service (work). Innovation Confrontation Risk-taking Accomplishment	Judged by how many resources are at one's disposal Size of empire rewarded Scope of supervisory responsibility determines remuneration Seniority Conflict avoidance Low Profile Putting in time
5. LEADERSHIP (Management responsibilities and their implementation)	Delegates responsibility Responsibility and accountability defined	Fail to delegate Multiple levels of managerial review that prevents innovation and self direction
6. HELPFUL MECHANISMS (Management information budgeting, planning, and how well they are used)	Functions of planning, budgeting, controlling and measurements are rationally determined.	Political determination of these functions - managers lack a sense of involvement in planning direction.

TABLE 1 Public and Private Analysis in Relation to the Six-Box Model Organizational Process.

STRUCTURE

Within the structure of the matrix four dichotomous elements were identified. These elements are:

1. Tasks are differentiated in organizations in order to facilitate their accomplishment. In the public sector, the lack of intrinsic interdependence make integration of the structure difficult to accomplish. This is further impeded by the bureaucratic nature of public service organizations.

2. The nature of public sector has changed dramatically from routine clerical and administrative chores to the delivery of sophisticated, complex services. The task environment is no longer routine but demanding of tolerance, flexibility, and risk taking.

3. There is strong propensity to "reorganize" in the public sector when dissatisfaction occurs in service delivery rather than to confront difficult issues. To be effective, reorganization must include solution of the issues that lie at the root of the organizational difficulties. Before reorganization, it is helpful to examine clarity of purpose, organizational of bureaucratic norms, the relationship of organizational processes to results, and the sanctions for risk taking.

4. Clear task differentiation is rare in the public sector because human services are not neatly distinguishable. Because interdependence is lacking, there is a tendency for each organizational subunit to "own" the client and not to put the client in touch with other parts of the system.

RELATIONSHIPS

The relationships construct of the matrix contains three dichotomous elements. These are identified as:

1. There is a strong norm in public service organizations that conflict is "bad" and professional people ought to be able to get along. This means that differences between people and between groups rarely surface, and conflict is managed through denial and compromise rather than by confrontation or the acceptance and resolving of differences.

2. Organizational issues requiring collaboration such as long term planning are either poorly done or not attempted. This has a less dramatic impact than might be expected due to the low interdependence in the public service organization.

3. Team-building interventions as an organizational development strategy may surface interpersonal anger, due to the "seeming differences under the managers" style of conflict management in public service organizations. The focus of team building activities should be on goal and purpose clarification, the way work is done and decision-making processes.

The examination of interpersonal relationships should be given a low priority in the team building process.

REWARDS

The rewards construct contains two dichotomous elements which are identified as follows:

1. The number of people whom one supervises rather than the quality of supervision often determines status and salary in the public sector.

2. Informal work norms may have a coercive effect on the person in the organization. Because the norms interfere with risk-taking, change will be resisted and it will come slowly in the public sector.

LEADERSHIP

Within the leadership construct three dichotomous elements were identified:

1. Organizational norms in the public sector conspire against effective leadership behavior such as a failure to delegate, multiple levels of managerial review, centralized power, minimize innovation and self direction, specific rules and regulations.

2. The interface between career employees and politically appointed or elected officials in the public sector is often contradictory with the net impact of a buffering on leadership, especially leadership for change.

3. Managers in the public sector must respond to several different constituencies. Extreme caution and a strong norm to protect oneself become necessary defenses to multiple pressures.

HELPFUL MECHANISMS

Two dichotomous elements were found in the helpful mechanisms construct of the matrix:

1. The usual formal mechanisms of planning, budgeting control and measurement rarely exists in a meaningful fashion in the public sector. Public organizations may attempt these functions, but they are ordinarily politically rather than rationally determined.

2. There are a plethora of informal mechanisms in the public sector, such as staff meetings, reports, memos, and informal get-togethers. Usually there is little sense of clarity or commitment to the organization and its goals. Increasing or improving helpful mechanisms is not needed. The critical need is to focus on organizational goals and to determine the degree to which some planning is possible.

IN SUMMARY

Use of position analysis in public school systems could be doomed to failure, unless the differences between public and private sector organizations are made clear and accommodated in the organization development strategy. Public sector organizations have less clarity of purpose and less commitment to organizational goals. Their structure tends to be more compartmentalized, hierarchial and rigid. Because interdependence is lacking, there is less structural interference with task accomplishment. Relationships are more remote and structured. Conflict is managed by avoidance, smothering, or compromise. Rewards are given for compliance,

rather than for accomplishment. There is little risk taking, leadership is more authoritarian. There is little use of helpful mechanism.

III. Analysis of Position Analysis as an Organizational Strategy

The study team relied on the authoritative sources found in the literature and through contacts in the business sector, cited in Chapter II, to obtain knowledge and understanding of the purposes and procedures for position analysis. The study team classified the aspects of position analysis strategy in the appropriate category of the Six-Box Model. These identified elements of position analysis were compared to the six organizational processes common to both private and public sector organizations.

The analysis produced thirty two elements that relate to the six processes.

PURPOSES

Within the purposes construct of the matrix ten elements were identified. These elements are:

1. Job restructuring and reorganization of the organization will be facilitated.
2. The relative worth of all positions within the organization will be determined.
3. Staff development will be facilitated.
4. The qualifications for each job will be determined.
5. Hiring and promoting criteria will be standardized.
6. Performance evaluation criteria will be standardized.

7. A means for on-the-job counseling will be established.

8. Wage and salary administration will be facilitated.

9. The appraisal, planning and development of manpower will be an outcome.

10. Job clarification will improve the morale of the staff.

STRUCTURE

Within the structure construct four elements were identified. These elements are:

1. The job content will be evaluated irrespective of title or status.

2. The interrelationship of staff and line positions and functions will be specified.

3. Duplication of work, overlapping of authority, and accountability vacuums will be minimized.

4. The jobs and the job cluster relationships will become closer.

RELATIONSHIPS

The relationships construct contains six elements. These elements are:

1. Collaborative relationships will become defined.

2. The interdependence of positions and functions will be clarified.

3. As interdependence is clarified cooperation will be fostered.

4. Collaboration and commitment will be developed.

5. A loyalty to the enterprise will be developed through clarification of organizational purposes, structure, and relationships.

6. The organizational climate will be positively affected through meaningful involvement and positive relationships.

REWARDS

The rewards construct contains three elements. These are identified as:

1. Recognition and rewards will be given to those identified as deserving them.
2. Job clarification will lead to positive results.
3. There will be equitable distribution of work and wages.

LEADERSHIP

Six elements were identified within the leadership construct. These are:

1. Job responsibilities will be defined.
2. Job accountability will be defined.
3. Authority will be defined.
4. The relationship will be specified and defined for delegation, decision-making problem solving, and for conflict resolution.
5. There will be an appraisal of organizational needs to accomplish organizational purposes.
6. A determination of manpower needs will be facilitated.

HELPFUL MECHANISMS

The helpful mechanisms construct contains three elements. These identified elements are:

1. A formal organizational system will be defined.
2. A rational process for the distribution of work will be defined.
3. A comprehensive organizational development strategy will be provided.

It is apparent that position analysis relates to each of the six organizational processes. Its major thrust might be

directed to the processes of structure, relationships, and rewards, but position analysis may also be directed toward the overall climate and health of an organization.

IV. Comparison of the Four Position Analysis Systems

The first step in examining the four position analysis systems was to select a group of position attributes as implementation criteria.

The criteria selected consisted of a series of specific attributes, some of which are inherent qualities in one or more of the position analysis systems.

The fourteen criterion were considered of equal value, so that the inclusion of one would be considered a simple plus factor and the omission of one, a zero. Proceeding on the premise that the fourteen criterion were equal, then a position analysis system containing more of the criterion items than another system would be considered a more desirable system.

The qualities of each of the four systems were examined to determine which of the fourteen criterion were present. A matrix was then constructed, with the fourteen criterion as the vertical axis and the four analysis items, the horizontal axis. Completion of the matrix then reflected which criterion was contained within each of the systems.

An interview was conducted with a corporate compensation manager. The intent of this interview was to confirm the implementation criteria regarding the four major position analysis systems. The interview was held to ascertain the ap-

plicability of the fourteen items utilized as criteria.[84]

Mr. Goetz concurred with the identified criteria. There were several questions concerning semantics, but he agreed that the criterion utilized were appropriate. The interview corroborated the findings that the point and factor comparison systems are indeed the most viable of the four major systems. It was also ascertained through this interview that both Bristol-Myers and Clairol Incorporated use a combination of the point and factor comparison systems. Of particular interest was the fact, that when Mr. Goetz was pressed to make a preferential distiction between these two plans, he was hard pressed to do so. While remaining convinced that a combination of the two best served his company, he did state that the point plan would best serve the objectivity aspect of a position analysis program.

ANALYSIS OF THE FOUR DIFFERENT POSITION ANALYSIS SYSTEMS:

The four major position analysis systems were analyzed against the criteria listed below with the results on the following page.

Examination of the results reveals that the Point Plan and the Factor Comparison System contain eight of the criteria, while the Ranking System contains six, and the Classification system only four. Therefore, within the parameters of the criteria established, the Point Plan and the Factor Comparison System are deemed to be equal and the best of the four systems studied.

TABLE 2

ANALYSIS OF THE FOUR DIFFERENT POSITION ANALYSIS SYSTEMS

IMPLEMENTATION CRITERIA	POSITION ANALYSIS SYSTEMS			
	RANKING SYSTEM	CLASSIFICATION SYSTEM	POINT PLAN	FACTOR COMPARISON SYSTEM
SIMPLE TO INSTITUTE	X	X		
MINIMAL COST TO IMPLEMENT	X	X		
MINIMAL ADMINISTRATIVE PROCEDURE	X		X	
CAN ACCOMMODATE ALL JOBS	X	X	X	
JOB DESCRIPTION NECESSARY			X	X
INTRODUCES ORDER OF RELATIVE WORK	X	X	X	
ACCURATE EVALUATIONS (JOB AGAINST JOB)			X	X
OBJECTIVITY			X	X
PERMITS EASY REFERENCE			X	X
MEASURES RELATIVE WORTH			X	
MINIMIZES SEMANTICAL PROBLEMS				X
DELIBERATE PROCESS				X
IMMEDIATE PRICING				X
LENDS ITSELF UNIQUELY TO COMPANY NEEDS				X
TOTAL	6	4	8	8

X Identifies System Satisfiers

A SUMMARY OF THE ADVANTAGES AND DISADVANTAGES OF THE FOUR MAJOR POSITION ANALYSIS SYSTEMS

An overview of the advantages and disadvantages of the four major Position Analysis Systems is provided below.

THE RANKING SYSTEM:

This system is simple to institute and administer. It is comparatively inexpensive to maintain. It establishes a ranking order of all jobs without the necessity of job descriptions, since the ranking is subjective. It utilizes a job versus job methodology to evaluate, which is considered the most accurate evaluation approach.

The Ranking System has inherent disadvantages. It uses subjective criteria and can be criticized for its lack of objectivity. Rankers have biases which lead to halo effect situations. Administrators of this system have difficulty in justifying results to supervision and employees. The process differentiates between jobs but does not quantify the difference. The Ranking System requires a considerable investment of time and money for implementation.

THE CLASSIFICATION SYSTEM:

One of the advantages of this system is that it is readily available within the Civil Service organizations. Developmental time and cost are minimal. It is effective in large organizations, wherein large numbers of employees do rela-

tively few jobs. This system is inexpensive to maintain.

This system has some distinct disadvantages. There is too much dependence on the one compensable factor. It is difficult, with this approach, to define levels of overall job worth in a meaningful way. As in the Ranking System, there is much subjectivity within this methodology. Lastly, many companies have reservations about this system because of its usage by Civil Service Organizations.

POINT SYSTEM:

The prominent advantages of the Point System are that it measures relative worth of jobs and promotes a higher degree of equity by measuring several factors. It has greater objectivity, since it weighs compensable factors and assigns points to each. Once developed and implemented, it is relatively easy to administer and maintain. The Point System readily integrates new jobs and allows for easy reference and job comparison.

The Point System has some significant disadvantages. It requires a long and difficult developmental and implementation process. The identification of compensable factors and the subsequent point assignments for each is an arduous task. This process is expensive. This process if fraught with semantical problems.

FACTOR COMPARISON SYSTEM:

This system can be tailorized to meet an organization's unique needs. It provides a methodical and deliberate format.

It utilizes a job-by-job comparison technique and immediate pricing of jobs. It avoids semantical problems. It allows for easy reference.

The Factor Comparison System is difficult to explain to employees because of its complex process. It makes some inherent suppositions that could lead to undesirable subjection. This can happen when a key job is selected and an assumption is made that the wages for that job are correct. It is an inflexible system with high development costs.

V. Comparative Analysis of Four Systems of Position Analysis in Relation to Purposes for Organization Development

Table 3 on page 88 displays an analysis of the applicability of each of the four position analysis systems as an organization development tool with respect to the organizational processes of the Six Box Weisbord Model. Table 3 is essentially a summary of the three previous analyses undertaken by the team.

The writers first developed a comparative analysis of the distinctive features of both the public and private sector organizations using the Weisbord Six Box Model of organizational diagnosis. Following that investigation a comparative analysis of the thirty-two elements of position analysis to the six organizational processes identified in the Weisbord Six Box Model of organizational diagnosis was undertaken. The team then conducted a comparative analysis of the major position analysis systems in relation to identified implementation criteria (see Table 3). Finally, the

TABLE 3

COMPARATIVE ANALYSIS OF FOUR SYSTEMS OF POSITION ANALYSIS IN RELATION TO FACTORS FOR ORGANIZATION DEVELOPMENT

SIX BOX MODEL POSITION ANALYSIS PURPOSES FOR ORGANIZATION DEVELOPMENT	FOUR SYSTEMS OF POSITION ANALYSIS			
	RANKING	CLASSIF.	POINT	FACTOR
PURPOSE				
1. job restructuring	X		X	X
2. relative worth of positions			X	
3. staff development			X	X
4. job qualifications		X	X	X
5. criteria for hiring		X	X	X
6. performance evaluation	X		X	X
7. on-the-job counseling		X	X	X
8. wage and salary administration	X	X	X	X
9. manpower appraisal			X	X
10. morale		X	X	X
STRUCTURE				
1. evaluation of job content			X	X
2. interrelationship of staff and line			X	X
3. minimizes duplication of work		X	X	X
4. job relationships become clear		X		
RELATIONSHIPS				
1. defines collaborative relationships			X	X
2. clarifies interdependence of positions		X		X
3. fosters cooperation		X	X	X
4. develops commitment		X	X	X
5. clarifies organizational relationships			X	X
6. effects organizational climate			X	X
REWARDS				
1. recognition of status	X	X	X	X
2. job clarification			X	X
3. equitable distribution of work			X	X
LEADERSHIP				
1. defines responsibility		X	X	X
2. defines accountability		X	X	X
3. defines authority		X	X	X
4. specifies and defines relationships		X	X	X
5. appraises organizational needs			X	X
6. facilitates manpower needs			X	X
HELPFUL MECHANISMS				
1. defines formal system	X	X	X	X
2. rational process		X	X	X
3. organizational development			X	X

X Identifies System Satisfier.

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study team conducted an in-depth comparative analysis of the major position analysis systems identified for the third exercise above (Table 2), in relation to the position analysis purposes identified in the second analysis.

Table 3 summarizes or combines these latter two components. This synthesis was carried out through the use of a matrix analysis. Each of the identified position analysis systems was reviewed in relation to position analysis features pertinent to organizational development. The left column comprises the Six Box Model Organizational processes as identified by Weisbord. Within each of these six boxes, the authors listed and classified those elements or features of position analysis. To the right is noted the four major position analysis systems originally identified in Table 2. Each position analysis system was then analyzed in relation to the identified features of position analysis as they respond to the purposes for organizational development. A consensus was achieved by the study team in judging each element of position analysis purposes in relation to each of the identified position analysis systems. Each position analysis system received a positive rating ("X") for every position analysis purpose indicated.

Table 3 displays the results of this analysis showing the applicability of each position analysis system as an organization development tool with respect to the organizational processes identified by Weisbord's Six Box Model.

Consistent with the literature, Table 3 suggests a hierarchical classification of the four position analysis systems. This analysis intends to reflect the degrees of comprehensiveness of each system as an organizational development strategy. The quantitative analysis of these systems is dependent upon the nature and needs of individual organizations regarding position analysis. It is important for a school district to recognize this when selecting one of the systems for implementation.

VI. ANALYSIS AND SUMMARY

The four position analysis systems, ranking, classification, point, and factor comparison, have been analyzed according to criteria identified in the literature and by experts in the field. The two simpler systems, ranking and classification, have been found to be inexpensive and relatively easy to implement. The more complex systems, point and factor comparison, although not simple or inexpensive, answer many needs of the organization adopting and adapting position analysis. Point and factor comparison systems are objective, require job descriptions, offer accurate evaluation of the job against job, and permit easy reference and job comparison.

Using the Weisbord Six-Box Model, which identifies the six interrelated processes that are inherent to any organization, in the public or private sector, position analysis has been analyzed as an organizational strategy. The purpose or

goals of public sector organizations are often poorly defined; position analysis answers many questions in this area.

The purposes identified as the aims of position analysis are: a) job restruction and reorganization, b) determining the relative worth of positions within the organization, c) staff development, d) job qualifications determined for each position, e) standardized criteria determined for hiring, and promotion, and for performance evaluation, f) a means for on-the-job counseling, g) wage and salary administration, h) manpower appraisal, i) planning and development and j) improved morale of the work force through job clarification.

Position analysis identifies the structure of the organization by analyzing how the job is done. Position analysis evaluates job content regardless of title and status. It is concerned with what is being done, not what the title says should be done. Position analysis specifies the interrelationships of staff and line positions and functions, provides the means to minimize duplication of work, overlapping of authority and accountability vacuums, and job and job cluster relationships become closer.

Position analysis examines the three kinds of relationships; interpersonal, intergroup, and interactive, identified by Weisbord as the third box of the Six-Box Model. Although in bureaucracies the interactive relationships are not important, position analysis defines collaborative relationships, clarifies interdependence of positions and functions, fosters

cooperation, develops commitment, clarifies organizational relationships, and effects organizational climate by meaningful involvement and positive relationships.

The fourth of Weisbord's six boxes is concerned with rewards. Position analysis addresses the questions of recognition of status, job clarification, and equitable distribution of work. Leadership, according to the Weisbord model, is concerned with monitoring the performance of the other five boxes. Position analysis defines responsibility, accountability, and authority. Position analysis is concerned with specifying and defining relationships, appraising organizational needs, and facilitating manpower needs.

The formal and informal mechanisms that bind the organization together are dealt with in the sixth box. Position analysis helps to define the formal system of the organization. It also provides a rational process for the distribution of work and provides means for organizational development.

When the four systems of position analysis are analyzed as an organizational strategy, there is strong evidence that the point system and the factor comparison method are the more comprehensive systems when related to the needs of an organization.

Differences among methods of job analysis [85]

Basis of Evaluation	Technique of Evaluation: By comparison with other jobs	Technique of Evaluation: By evaluation against a standard
Whole Job	Ranking Method	Classification Method
Job Factors	Factor-comparison Method	Point Method

Chapter V

Summary, Conclusions and Recommendations

The purpose of this study has been to identify models for determining the relative worth of administrative positions in public school systems through the use of the private sector practice of position analysis.

The study has addressed itself to two central questions:

(1) Is position analysis appropriate for use in public education?

(2) What criteria should be used in adapting position analysis to public education?

In addressing these questions a review of the literature of organizations revealed that all organizations, regardless of the sector, have specific common factors such as goals, structure, social systems, and communication networks. The writers have not attempted to show that these common factors make public institutions exactly the same as private sector institutions. Rather, the writers have ascertained similarities and differences between public and private sector organizations in order to identify those factors likely to facilitate or impede the use of position analysis in the public sector.

Through the use of a series of matrixes based on Weisbord's Six Box Model the study team analyzed and compared the distinctive features of private sector and public sector institutions and analyzed the use of position analysis as an organization

development tool.

The study team then identified four distinctive job classification systems that embody all methods of position analysis and subjected them to an in-depth analysis based on specifically identified criterion.

The third analysis consisted of continued use of the Weisbord Six Box Model to bring together the position analysis purposes for organization development and the four systems of position analysis. This matrix allowed the writers to identify "system satisfiers" for each system in relation to the identified purposes.

As a result of this analysis the study team presents the following conclusions:

(1) There are sufficient processes common to all organizations and functions common to all top level management to consider the adaption of position analysis systems as used in the private sector to the public sector.

(2) The degree of congruence between private and public sector organizations allows the adaption of position analysis techniques. The adaption would have the potential of enabling school districts to approach equtiy in terms of assignment of responsibilities as one job is compared to another in the organization.

(3) Position analysis as used in the private sector may be adapted for use in the public sector to achieve the following objectives:

(a) provide definitive, systematic, and factual data for determining the relative worth of positions.

(b) establish appropriate salary differentials for all positions within the school system.

(c) provide a rationale in the hierarchy of the job network

(d) clarify an overview of the specific job network; that is, the levels and relationships in the entire school organization.

(e) improve morale by encouraging administrative and supervisory personnel to think objectively about the work their subordinates are doing.

(f) aid in selecting, placing, promoting, transferring and training of personnel.

(4) Position analysis can be a critical part of organization development strategy as it relates to Weisbord's Model.

The writers caution the reader that, even though the "point plan" and the "factor comparison system" receive a much higher rating on the implementation matrix, we are not recommending the use of one system over the other. Rather, each

public institution must analyze their organization's needs, goals and resources to determine the most applicable position analysis system.

The factor comparison and the point system are the more comprehensive and most effective system satisfiers. However, the point system is ponderous and difficult to administer while the factor comparison system is complex and is extremely costly to administer and operate. For these reasons, circumstances may warrant the use of the ranking system.

The study team has not attempted to determine which position analysis system would be most applicable to an organization. Rather, the goal of this study has been to analyze specific organizational processes in relation to specific systems of position analysis. The findings lead to the conclusion that it would be appropriate to use position analysis in public education and that the selection of an appropriate system should be made in relation to specific criteria. No attempt has been made to include any field testing regarding the use of position analysis. This would be an appropriate follow up study to this endeavor.

FAIRFIELD PUBLIC SCHOOLS

P. O. BOX 220 • FAIRFIELD, CONNECTICUT 06430

(203) 255-8300

ADMINISTRATIVE OFFICES
214 Main St., Southport

Dear Colleague:

In an Educational Research, Inc. publication entitled Methods of Scheduling Salaries for Principals, your system was listed as one example of those utilizing the various methods of salary scheduling.

Presently, we are beginning a study to review arrangements utilized to recognize equity and parity of administrative positions in Education. It is our hope to do among other things, the following:

1) Establish and define criteria upon which administrative categories could be based;

2) Analyze existing administrative positions based on those criteria;

3) Define the procedure and substantive basis for the category assignment of new positions

Do you have any information available that might assist us in arriving at an equitable way to distinguish between the various types of assignments? We are most interested in learning what specific elements (example: Length of work year, number of subordinate officers) might be weighed so that appropriate differentials are achieved.

It appears that you may have some information as it pertains to arriving at an "index", "ratio", or some measurable relationship.

Any help that you might give us would be greatly appreciated.

Sincerely,

Ralph M. Burke, Jr.
Administrative Assistant

RMB:jg

EXHIBIT I

FACTOR AND DEGREE DEFINITIONS

1. COMPLEXITY OF PROBLEMS

This factor is a measure of the mental demands required by the position in terms of problem-solving skills. Consideration is given to:

- The depth of analysis required
- The degree of original and independent thinking required

Degree	Degree Definition	Rating
1	Requires ability to handle a wide range of highly complex and loosely defined problems. The basic approach to problem-solving may only be suggested. Solutions frequently require a high degree of original and independent thinking.	G+/G/G-
2	Requires ability to handle diverse and complex problems needing practical, often innovative, solutions. Methods are numerous, but approach is generally defined. Precedents are generally well-established.	F+/F/F-
3	Requires ability to handle a variety of difficult but usually fairly well-defined and related problems where thought process is structured by a variety of diverse principles and methodologies.	E+/E/E-
4	Requires ability to handle difficult but closely related and usually well-defined problems where thinking is structured by diverse principles or practices.	D+/D/D-
5	Requires skill in handling dissimilar but relatively common problems where thought process is usually patterned by standardized practices or procedures.	C+/C/C-
6	Requires skill in handling similar tasks where problem-solving is generally guided by detailed practices or procedures.	B+/B/B-
7	Requires skill in handling relatively simple and precisely defined tasks.	A+/A/A-

2. EXPERTISE AND SKILLS

This factor is a measure of the knowledge and experience necessary to satisfactorily carry out the duties and responsibilities of the position. Consideration is given to:

- Formal education and on-the-job training
- Breadth of experience required
- Amount of prior experience required

Degree	Degree Definition	Rating
1	Requires substantial knowledge of the entire operation of the District, the education field, and extensive management experience.	H+/H/H-
2	Requires expertise in education and educational administration and considerable management experience.	G+/G/G-
3	Requires a high degree of knowledge, and substantial experience in education and educational administration or the particular function involved.	F+/F/F-
4	Requires significant knowledge and experience in teaching, curriculum, or other area of education or discipline.	E+/E/E-
5	Requires basic knowledge with respect to scientific, professional, statistical, or management discipline or field.	D+/D/D-
6	Requires general knowledge equivalent to a high school education plus competence in specialized fields such as accounting, building maintenance, communications, or data processing	C+/C/C-

2. EXPERTISE AND SKILLS (Continued)

Degree	Degree Definition	Rating
7	Requires general knowledge equivalent to a high school education plus skill in areas such as typing, blueprint reading, or the operation of more complicated office or shop equipment.	B+/B/B-
8	Requires ability to perform routine sorting and filing, keeping simple reports, and operating simple office machines.	A+/A/A-

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3. ADMINISTRATIVE RESPONSIBILITY

This factor is a measure of the responsibility for organizing, directing, motivating, and evaluating programs, activities and/or personnel. Administrative responsibility is not just the number supervised, but also

- The complexity and variety of administrative activities engaged in
- The extent to which coordination of diverse functions is required
- The relative authority exercised over the performance of a function

Degree	Degree Definition	Rating
1	Position involves administrative line responsibilities over all major functions.	I+/I/I-
2	Position involves administrative line responsibilities over several major functions.	H+/H/H-
3	Position involves administrative line responsibilities over all aspects of a major function or an attendance center.	G+/G/G-
4	Administrative line responsibilities are very complex, involving several diverse and important aspects of a major function.	F+/F/F-
5	Administrative line responsibilities are complex and somewhat diversified, involving several related aspects of a major function or at more than one location.	E+/E/E-
6	Administrative responsibilities are moderately complex, being held responsible for the performance of the same or similar activities.	D+/D/D-
7	Administrative responsibilities are generally routine, involving the same or similar activities.	C+/C/C-
8	Occasional administrative line responsibilities on a short-term or project basis.	B+/B/B-
9	Position involves little or no administrative line responsibilities.	A+/A/A-

4. WORKING RELATIONSHIPS

This factor is a measure of the responsibility for directing and maintaining working relationships with individuals or groups within or outside the District who may affect the District's objectives and plans, operations, and/or public image. External contacts may include other districts, governmental agencies, financial institutions, civic organizations, labor unions, and suppliers. Consideration is given to:

- Requirements for diplomacy and persuasiveness
- Frequency of external contacts
- Level of contact with external organizations
- Level and frequency of internal contacts

Degree	Degree Definition	Rating
1	Responsible for establishing and maintaining productive working relationships with the Board of Education; Chief Executive Officers of other districts; leaders in financial, business and community affairs; and government officials.	G+/G/G-
2	Responsible for developing and carrying out plans and programs with persons or groups who are in a position to significantly affect the District's operations and/or public image. Contacts require a high degree of skill in diplomacy and persuasion.	F+/F/F-
3	Responsible for important internal or external contacts involving explanation and decision-making. Contacts are frequently of a negotiating and/or technical nature, requiring significant tact and persuasion.	E+/E/E-
4	Responsible for frequent contacts to obtain or give information or to supply assistance. Contacts require a moderate degree of skill in persuasion and tact.	D+/D/D-
5	Responsible for frequent contacts of a routine nature for the purpose of obtaining or giving readily available information. Normal courtesy and tact are required.	C+/C/C-
6	Responsibilities include occasional internal or external contacts requiring normal courtesy and tact.	B+/B/B-
7	Responsibilities require limited or no internal or external contacts	A+/A/A-

5. FINANCIAL RESPONSIBILITY

This factor is a measure of the impact of actions and decisions on the District's short- and long-term operating costs, capital expenditures, and assets. Consideration is given to:

- The absolute amount of dollars involved
- The degree to which costs can be controlled
- The extent to which performance can affect costs and cost effectiveness

Degree	Degree Definition	Rating
1	Responsible for the District's overall financial status.	H+/H/H-
2	Responsible for making final operating decisions and making recommendations having a major effect on the District's financial status.	G+/G/G-
3	Responsible for making independent decisions affecting all aspects of a major function or separate attendance center. Is expected to make recommendations concerning substantial expenditures.	F+/F/F-
4	Responsible for decisions and actions having a moderate impact on costs. Decisions are generally confined to the allocation of budgeted amounts or to the expenditure of approved amounts. May assist in formulating recommendations on important expenditures or financial matters.	E+/E/E-
5	Responsible for decisions and actions having a limited influence on operating costs or cost effectiveness. May recommend routine expenditures within policy limitations.	D+/D/D-
6	Inadequate performance could cause a substantial waste of materials or costly damage to equipment. Decisions and actions are usually reviewed.	C+/C/C-
7	Inadequate performance would result in minor damage to equipment, or in minor inconveniences and expense. Decisions are regularly reviewed.	B+/B/B-
8	Inadequate performance would have a limited effect on operating costs. Actions are regularly reviewed.	A+/A/A-

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POSITION EVALUATION CONVERSION TABLE

RATING	FACTORS 1 COMPLEXITY OF PROBLEMS	2 KNOWLEDGE AND SKILLS	3 ADMINISTRATIVE RESPONSIBILITY	4 WORKING RELATIONSHIPS	5 FINANCIAL RESPONSIBILITY
A-	20	20	20	20	20
A	29	28	27	29	28
A+	38	36	34	38	36
B-	47	44	41	47	44
B	56	51	48	56	51
B+	65	59	55	65	59
C-	74	67	62	74	67
C	83	75	68	83	75
C+	92	83	75	92	83
D-	101	91	82	101	91
D	110	98	89	110	98
D+	119	106	96	119	106
E-	128	114	103	128	114
E	137	121	110	137	121
E+	146	129	117	146	129
F-	155	137	124	155	137
F	164	145	130	164	145
F+	173	153	137	173	153
G-	182	161	144	182	161
G	191	168	151	191	168
G+	200	176	158	200	176
H-		184	165		184
H		192	172		192
H+		200	179		200
I-			186		
I			193		
			200		

APPENDIX C

JOB DESCRIPTIONS

I. Why School Districts Need Job Descriptions

A job description must be described because a job can mean so many things to so many different individuals. This fact is especially true in school assignments--for example, the teachers. A supervisor may expect a classroom performance whose details have never been explained to a new teacher. Every individual needs to know and has a right to know, exactly what is expected of them, so as to make a least a minimum contribution to the students' well-being and to their learning experiences.

The job description, then, is the meeting-ground for school managers and school employees. Properly used, it ties all the elements of the management-employee effort into a unified, concerted effort. Industry has used job descriptions for years to identify jobs to be "rated". This latter term has not been acceptable in the educators' circles. But, industry and government resorted to job descriptions for professional as well as production of workers--to everyone's advantage and for everyone's protection. The fact is that job descriptions work for the benefit of all affiliated with an organization. In the more recent past, the educators are coming to recognize that this is so. The effective development of a job description program requires a clear agreement between

the governing board and its management executive, the superintendent, as to the content and uses of job descriptions within its district. The nature of this agreement emerges from the basic board-superintendent relationship. In order to set a context for what follows, it would be well at this point to examine this relationship in some detail, particularly in terms of the Board's policy development responsibilities and the administration's obligation to implement policy. Consider then, the following from a primary guidebook on the subject:

> The board makes policy; the administration executes it. That has been an article of faith in American education for many years. But the line doesn't always hold fast. For one thing, there are gray areas in decision-making. For another thing, the public doesn't always recognize the fine line between the board's legislative and ministerial function and the administration's day-to-day role. The public doesn't always differentiate between who is responsible, lay board or professional staff, for a given problem. Ultimately, the public always holds the board to account. And that's as it should be, because duly elected or appointed school boards have been delegated by the state with the legal power to operate the schools. Neither morally nor legally may these powers be relinquished. Legal authority may not be given away.
>
> In a sense, accountability isn't fair. Perhaps as much as 80 to 90% of what school boards do is predetermined by (a) state law; (b) federal guidelines; (c) negotiated agreements; and (d) budget limitations. But to quibble about what's fair is futile. Accountability has been thrust upon school boards; they must accept it.
>
> The school board that holds itself accountable will insist on being kept informed about the total school program. It will insist on getting continuous evaluations of staff and programs. It will be responsive to the public's growing insistence on getting returns on money being pured into the school endeavor. It will exercise a healthy skepticism regarding long-standing practices - like the seniority system for determining promotions.

> But to say that the accountable school board will involve itself in the total school endeavor is not to promote administrative meddling by board members. It doesn't mean the abolishment of the school board - administration distinction. It does suggest, however, that the process of board policy development and administration execution of policy (as in the development of job descriptions) is a complex, delicate, and sophisticated activity.[86]

The assignment of specific responsibilities to a job affec-s the structure and functioning of the school organization as does the design of individual parts affect the structure and functioning of a machine. Hence, a job description, according to a National School Boards Association publication,[87] becomes the manager's basic resource as it pertains to the individual's three primary activities:

A. ORGANIZATIONAL PLANNING. The job description is a basic resource for planning the ways and means by which a job will be done. It permits easy translation of a school system's organizational goals into the assignment of specific responsibilities to individual jobs. It can bring to light poorly defined authority, and overlapping and duplication of effort. It prevents the setting up of fictitious titles as a basis for attempts to mislead personnel or fiscal authorities, and it enables all who are interested to get an "inventory view" of the educational system, to find out how it it organized as to kinds of personnel, what numbers

and kinds of jobs exist, how the various appropriations are distributed as to jobs, and similar items of information on a reliable fact basis.

B. BUDGETING. The job description is a basic resource for controlling operations to see that the job is done efficiently. A job description program (a) furnishes standard nomenclature which can be used to compile a meaningful statement of jobs within a school system and (b) provides logical functional groupings upon which compensation schedules can be based. The combination of these two gives the superintendent the major budgetary tools he needs to obtain funds and justify their expenditure. In addition, school board members are able to get a clear picture of the organization and job-content of the different operating units as a basis for action.

C. PERSONNEL ADMINISTRATION. The job description is a basic resource for selecting and developing the people who will do the job. Job descriptions can set standards which extend from the employment interview to final separation. They are useful in placement, promotion, and transfer procedures. They can spell out the terms of tenure, and they are the court of immediate resort in evaluation procedures.

> The job description is a foundation stone in personnel management and development.
>
> A job description, though, is not exactly a policy statement. It is a document intended to implement policy. A school board policy, by standard definition, is a guideline adopted by the Board to chart a course of action. It tells what is wanted and perhaps why and how much. It is broad enough to admit discretionary action by the administration in meeting day-to-day problems, yet specific enough to give clear guidance. An administrative rule or regulation, on the other hand, is a document designed to put policy into practice. It is usually more detailed than a policy statement, telling such things as how, by whom, where, and when things are to be done. A job description is, in the opinion of the National School Board Association's Educational Policies Service, a kind of administrative rule. Job descriptions make the job possible, make managers efficient, and make the boards cognizant. A written and continuously updated program is an essential mechanism of a soundly organized and effectively operated school system.[88]

An overall method of describing a broad range of jobs should prove functional, and it is perhaps inadvisable to alter it drastically, except for inescapable local needs.

II. Development of Job-Related Information

Job-related information can be obtained in various ways and organized and displayed in various forms. The typical processes that are involved in the development of such information by many organizations usually begins by observing and interviewing the job incumbent and the making of rough notes about the assignment. This is followed by an interview with the immediate supervisor to obtain further information or to verify some of the data obtained from the incumbent. One can also inquire of any subordinates as well as peers. The analyst then would prepare a draft of a job description or possibly a job specification which is then submitted to the supervisor and other appropriate individuals for review and comments before a final document is prepared.

The specific purpose of a job analysis program will dictate certain aspects of any program, but within such parameters there are generally four features on which some determination must be made.

III. Type of Job-Related Information

Some of the information that one might wish to obtain by a job analysis procedure, or by any other method of obtaining job-related data can include:

A. Work Activities--includes a description of work performed expressed in job terms and usually indicating what is accomplished. Usually, these activities are those involving human participation, but in certain approaches may characterize an instrument or a system

function. Worker activities can also be incorporated to include human behaviors and personal job demands.

B. Equipment and Work Aids Utilized--includes job-related tangibles or intangibles such as materials or products handled, knowledge dealt with or services rendered.

C. Work Performance - includes time span and standards.

D. Performance Environment--includes physical working conditions, work schedule and incentives.

E. Personnel Requirements--includes knowledge and skill and personal attributes.

IV. Forms of Job-Related Information

Generally, the form of job-related information can be categorized as being expressed in either qualitative general terms or specific in quantitative form. The qualitative format is generally characterized as typically verbal and generally in a narrative or descriptive presentation. Most often, working conditions and personal requirement would be so identified. The quantitative or more specific format is characterized by uses of numerical or measured units of job information. For example, specific kinds of work or behavior, output per unit of time, error rates or rating of job characteristics.

V. Methods or Approaches for the Collection of Assignment Information

Among the approaches for obtaining job information, the more common are:

A. Direct observation.

B. Interviews--either with an individual or group. Individual interview would be with a job incumbent, supervisor and subordinate. A group interview would consist of an incumbent along with peers doing the same assignment, and/or sometimes could be with a group of subordinates.

C. Technical conference--this is generally held with specialists or other Personnel Administrators. For example, in the school district it may be outside resource such as Personnel Administrators of a like corporation or school district or supervisors conscious of a given assignment with a similar setting which is under investigation.

C. Questionnaires--either structured or open-ended.

D. Examination of Diary--kept by an incumbent of job activities. Quite often in a school setting this might include the appointment calendar and monthly calendar of standard meetings. Such items as critical incidents which may not be routine but certainly not unusual should be noted.

E. Recording of Job Activities--utilizing such devices as video, film and/or tape.

Each individual method has some special advantages in terms of the type and adequacy of the information it elicits

as well as its validity. Conversely, most methods have constraints or limitations. Hence, usually a job analysis or investigator will utilize several of the approaches to glean a complete or total picture of the assignment.

VI. Conventional Job Description Format

The United States Training and Employment Service (USTES) of the Department of Labor has had more experience in job analysis activities than any other organization. The format as outlined in their "Handbook for Analyzing Jobs" can serve as a basic manual in developing a job description. The essential elements of a job description include the following:

A. A job title by which the job is known and established and recognized by all. The more common titles should be placed in capital letters followed by others in lower case. If a title is ambiguous, a qualifying word or explanation is to be entered in parentheses.

B. Job Goal or Summary--this would include a concise and comprehensive statement describing the purpose and nature of the assignment and could, for example, reflect the significant involvement of the worker with data, people, or things on the level of such involvement. These three types of involvement are based on what is referred to by S. Fine as "Worker Functions".[89] This advances the job description from the list of concrete assignments to a direct tie-in with the primary purpose or goal of every school system--the best education possible for students.

C. Minimum Qualifications--this section enumerates the number of worker traits that are considered to be important. Such things might include education, experience in special skills, education or training, physical or mental traits, as well as those mandated by state law or regulations and Board or administrative policy. A phrase, "Demonstrated aptitude for performance of the tasks listed below" will give legal protection.

D. Major performance Responsibilities or Description of Tasks--here one would list the work to be performed. The heart of a job description, but only the major performance responsibilities which make up the job, are noted and generally in order of priority and in brief, concise language. It should not be a shopping list of the various mundane tasks that are involved in the day-to-day operation.

E. Responsible or Reports to--this makes it clear where the job position relates in the chain of supervision or hierarchy identifying the individual by title to whom the incumbent will or does answer to.

F. Terms of Employment--states the length of the contract, perhaps the salary and other mutually agreed upon contract terms.

VII Development of Job Description

In developing the "end product" of the typical job analysis process, there are some usual steps and procedures that lead up to such preparation.

A. Preliminaries for Job Analysis--Arrangements should be made through the chain of command for the conducting of any analysis. Whoever makes such arrangements should make clear to the various officials the reason for the analysis and should indicate what will be involved including time required on the part of the job incumbent. In turn, the supervisor of the job incumbent should advise the incumbent himself of the analysis and should schedule the analysis at such times that are mutually convenient with the incumbent, the job analyst, and the work activities of the unit. This will pave the way for an orderly and, hopefully, more objective atmosphere for gleaning such information.

B. Closely related to the matter of format is the question of whether or not a job description is adequate. Someone must decide if each job description meets a previously established standard of adequacy.

> A job description is adequate if it states minimum qualifications, relationships, assignment goals, responsibilities and terms of employment clearly and definitively enough to provide an accurate job picture to reasonably inform lay persons such as School Board members.[90]

1. Qualification requirement of a job may usually be inferred from the description of its work. If, though, there are specialized requirements or demands otherwise unapparent, then, they should be stated.
2. An adequate description clarifies the supervisory relationship.
3. If an employee supervises others, the job description should identify the organization or jobs under one's supervision, identify the kind and level of work and approximate size of the staff supervised, and describe the scope and degree of one's supervisory responsibilities. The description of a supervisory job need not include a detailed description of the work performed by subordinates, since this should be available and clear in the subordinate's own job description.
4. The statement about job goals should attempt to expand the jobholder's vision. One should be able to relate the job responsibilities to the larger and nobler purpose of the public school system.
5. The nature and extent of the job's responsibilities should be as exact and as specifically worded as possible.
6. The terms of employment are a matter of record. Consideration should be givn, though, to not delimiting a school administration's prerogative to flexibility if the future needs, not unforeseen now, become a reality.

C. Writing and Editing of Job Descriptions

Writing is a skill that most in a responsible position possess. The question, then, is hwy are so many job descriptions poorly prepare? Why are they wordy, overly detailed, repetitive, unnecessarily complicated and padded with jargon of the profession? The chief causes of poor job descriptions are:

--Failure to recognize that the job, not its occupant, is being described.

--The writer's belief that the job description must be inflated to justify the assignment.

--Unreasonable standards of detail and completeness.

--The employee's fear that leaving out some work may adversely affect their performance evaluation or be "used against them."

Essentially, knowledge of the assignment is needed for an accurate write-up.

In writing goals for an adequate job description, a writer should be:

1. Factual--and have all the facts about the assignment before describing it in writing.
2. Objective--in not making contentions, drawing conclusions or interjecting opinions.
3. Direct and specific--and in simple and definitive terms using common everyday language.
4. Brief--and to the point.

D. Step-by-Step Suggestions When Writing a Job Description.

--realize the importance of what is to be done and decide to give it the time and thought it deserves.

--be sure that you understand why you're writing a job description and what purpose it is to serve.

--obtain a completely clear understanding of the assignment.

--study all the available instructions and guides.

E. Analyzing the Job

--begin with the major performance responsibilities. This is the heart or essence of a job description.

--break the job down into its component parts and see what ties them all together. The subtle aspect is not readily available through direct observation.

--dividing the job into parts through the analytical process is primarily one of finding the right questions that will expose the job structure. Some questions might include:

(a) What is the sequence of work activities in a typical day?

(b) What responsibilities take up most of your time in a typical day?

(c) With whom do you have personal contacts in your work? How frequently do they occur--what is their purpose?

(d) Under what kind of supervision do you work? What is the kind, extent and limitation of authority responsibility assigned to the job?

(e) What responsibilities do you have for the work of others? What is the exact nature of your control of subordinates' jobs? What is the magnitude of this control?

(f) What is the extent of the job's contribution to the objectives of the school system? [91]

From answers to these questions, shape a rough list of the job's responsibilities, rearrange the items in the list in some logical way--chronologically, order of importance, etc.

F. Writing Performance Responsibilities

--without any though of order or arrangement, jot down everything you can think of that is done in the job. This serves as a kind of reminder or memory jogger.

--examine the list to see whether the job appears to be divided into parts consisting of particular types of work. Make up a list which will denote the major areas or subdivisions of the job's work. This helps to identify the job's major performance responsibilities. When you feel you have a logical group of headings, arrange them in any order which will give a clear picture of the whole job.

--outline the major performance responsibilities and then reduce the "reminder" list to such categories.

--estimate the percentage of work time devoted to the work under each heading. This gives one a sense of the relative importance of the job's responsibilities.

--utilize present tense verbs. Some assignments are more readily described by giving their responsibilities in order of their importance--some by following the sequence in which the work is performed, and others by grouping responsibilities according to function.[92]

G. Some Writing Tips and Suggestions

--the description should focus on importance or significant facts stated in objective terms.

--brevity is the essence of position description--the idea is to convey the largest possible amount of significant information with the fewest possible words.

--job duties should be stated clearly and concisely but without unnecessary detail.

--the flow of the narrative should concentrate on exactly "what" the responsibilities are. If a statement of responsibility explains "why" or "how", it should be eliminated since such only causes the description to become procedural.

--the selection of the verb is especially important since this will often denote the level and difficulty of duties (e.g., directs, controls, counsels, disciplines, conducts, reviews, coordinates, schedules, approves, etc.).

--the wording of the description should be simple, yet explicit enough to be understood by an outsider.

--the profession or department jargon should be avoided. If they must be used, they should either be explained or expanded upon.

--write job descriptions for lower level assignments first and gradually work up to the higher grade or classification. This builds a good working knowledge of the area.[93]

H. Editing and Final Review of the Description

Have the draft reviewed by the person(s) performing the job and the supervisor. All corrections or revisions are made at this time. Subordinates and outsiders who may have an understanding of the operation and purpose of the organization and the specific assignments being reviewed can also be most helpful. In summary, the description should be unbiased, specific, concise, logical and, above all, clear and accurate.[94]

Footnotes

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